



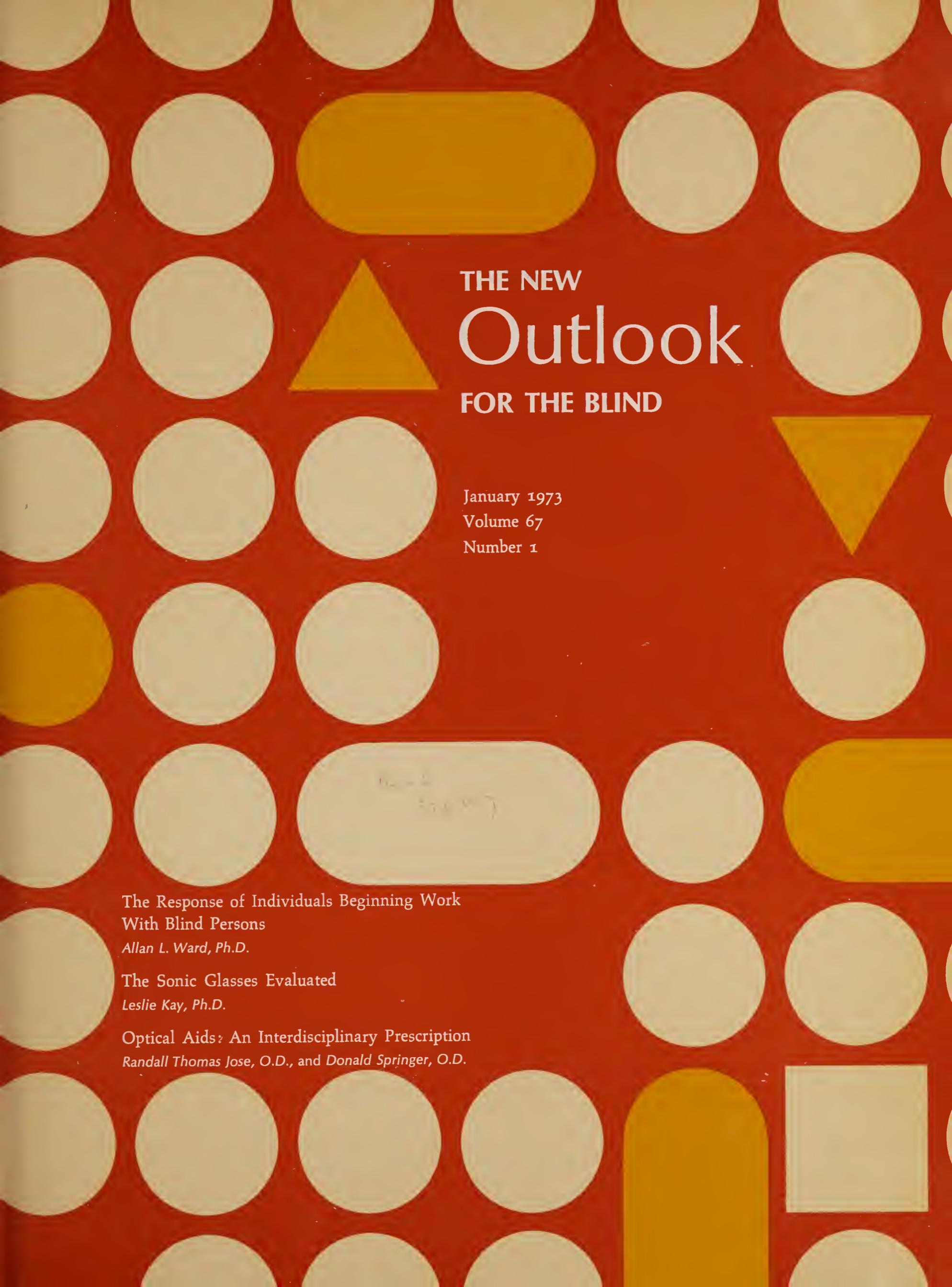
15 WEST 16th STREET
NEW YORK, N. Y., 10011



Digitized by the Internet Archive
in 2019 with funding from
American Printing House for the Blind, Inc.

<https://archive.org/details/newoutlookforbli67unse>





THE NEW
Outlook
FOR THE BLIND

January 1973
Volume 67
Number 1

The Response of Individuals Beginning Work
With Blind Persons

Allan L. Ward, Ph.D.

The Sonic Glasses Evaluated

Leslie Kay, Ph.D.

Optical Aids: An Interdisciplinary Prescription

Randall Thomas Jose, O.D., and Donald Springer, O.D.

THE NEW Outlook FOR THE BLIND

January 1973 Volume 67 Number 1

Articles

- 1 The Response of Individuals Beginning Work With Blind Persons
 Allan L. Ward, Ph.D.
- 6 NAC Assesses the Impact of Accreditation
- 7 The Sonic Glasses Evaluated
 Leslie Kay, Ph.D.
- 12 Optical Aids: An Interdisciplinary Prescription
 Randall Thomas Jose, O.D. and Donald Springer, O.D.
- 19 What Does It Mean To Be "Legally Blind"?
 James S. Liska
- 21 Trends Affecting Designs for Service
 H. David Sokoloff, A.I.A.
- 25 Ten-Year Study of Diabetic Retinopathy Begun
 by the National Eye Institute
- 27 Orientation and Mobility Instruction for Blind
 Individuals Functioning on a Retarded Level
 Benjamin C. Johnston and Michael C. Corbett

Departments

- 32 Editorial Notes—Some Changes in the New Outlook
- 33 Hindsight
- 34 Review—*Elizabeth; A Handicapped Child in the
 Family; and Rock-a-Bye Baby*
- 37 Comment—Braille Bookkeeping, *Arthur J. Hallinan*
 Teaching Braille to Slow Students,
 Suzanne Johnson
- 39 Letter to the Editors
- 41 From the Field—Identification Card Programs
- 43 Current Literature
 Mary Maie Richardson
- 47 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to 75c according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief

M. Robert Barnett

Managing Editor

Patricia Scherf Smith

Associate Editors

Mary Ellen Mulholland
Michael E. Monbeck

The Response of Individuals Beginning Work With Blind Persons

ABSTRACT: *A three-year interview-survey program conducted at Arkansas Enterprises for the Blind, Little Rock, in which 90 interns were questioned about their reactions to working with blind persons for the first time. Those who had had previous contacts or who themselves had a severe visual handicap experienced no unusual reactions. Those who had had no such contacts, however, experienced depression, frustration, fear, sorrow, pity, revulsion, guilt, and resentment, both intensely for a short period and less so for an extended time. It was found that forewarning new workers of the possibility of such reactions is helpful. Individual and group counseling was also beneficial.*

How do individuals beginning a career with blind persons react when first associating with those who have visual problems? To secure further answers to this question, the following three-year study was conducted. Ninety persons from 12 states and one other country receiving their initial professional training and intern work as rehabilitation teachers, counselors, and orientation and mobility instructors at Arkansas Enterprises for the Blind (AEB) were interviewed individually and in groups while in training and were sent follow-up questionnaires on the job.

□ For the purposes of reporting, the subjects may be divided into the following three categories: 1) sighted persons who had little or no previous association with blind people; 2) sighted persons who had previous associations with blind people; and 3) persons who themselves have a visual problem. All had been hired by a state or private agency to work with blind persons or were completing graduate work in rehabilitation services. The interns observed, received training, and did practice teaching in their areas of future responsibility for approximately a three-month period. They worked under the supervision of AEB's regular staff with the resident trainees; there are approximately 90 persons in residence at all times throughout the year, with a weekly turnover of three to six persons, for a total of about 300 per year.

The members of the first group of interns experienced a pattern of reaction so uniform that it has been made the main focus of this article. The second group could generally recall having experienced a similar pattern at an earlier time but did not experience it again. The third group had been self-relating to visual problems and did not experience a new response pattern.

At some point between the first day and the end of the second month most of the professionals in the first group experienced an intense reaction that lasted for one or two days and, in milder forms, sometimes for longer periods.

This reaction was characterized by the interns with the following terms: depression, frustration, trauma, fear, withdrawal, melancholy, sadness, fright, amazement, nervousness, helplessness, uneasiness, dizziness, sorrow, revul-

ALLAN L. WARD, Ph.D.

Dr. Ward is director of research and staff development, Arkansas Enterprises for the Blind, Little Rock.

Three Categories of Subjects

Patterns of reaction

Negative reactions

sion, pity, annoyance, guilt, shyness, self-consciousness, resentment, "lost," "fit-to-be-tied." Many retreated to an isolated place and cried; a few reported they had wept intermittently throughout the first night after the feeling began.

□ With part of group one, no previous mention had been made that such a feeling might occur. The interns did not necessarily associate its onset with their work with blind persons. Some thought they were feeling a "change of climate" or "weather conditions," were "coming down with something," or were "cracking up." Most hesitated initially to mention their feeling to anyone. They were frightened by their own reactions until they became aware through discussion that their feelings were not unique.

With the remainder of group one, mention was made upon their arrival that others had experienced such feelings and that they might also. They were invited to come and talk about it if such reactions did occur. The response occurred as frequently with those who had been forewarned as with those who had been unprepared. At the onset of depression, the forewarned interns would usually come to the research director's office and say "Well, it has happened," or "I am in it now."

□ These feelings seem to originate on three different levels, from the outer or immediate cause, from the personalization of these observations, and from inner or philosophical factors.

Level one, the outer or immediate cause, is related to associating for a prolonged period (at least eight to 12 hours a day, five to seven days a week for an average of three months) with blind persons. Some of the actual responses are illuminating and are quoted here to give the feeling as well as the content of these reactions: The feelings were brought on by "sudden exposure to so much blindness." The response was to "large groups of people bumping into one another." "I felt angry that there had to be blindness. Seeing almost 100 legally or totally blind individuals together in one place, watching blindisms of the congenitally blind, thinking about the experiences and concepts which a congenitally blind person had missed, hearing about the feelings which the trainees expressed about themselves and about sighted people."

"When I first began my professional training I experienced an attitude of pity toward the blind people. These feelings of pity did not last long. Within a few days—less than two weeks—pity turned to revulsion. I was repulsed by the blindisms, by the appearance of the blind person, and even by the sound of the tapping cane." "I remember feeling like I wanted to run and just get away from everyone. I felt I was trapped in a zoo and I objectively observed many of the trainees with all of their blindisms."

On the second level, the interns began to consider what would happen if they personally were deprived of sight. This resulted in such comments as these: "I was not psychologically nor emotionally prepared for the impact of total darkness (in blindfold work)." "I am sure these feelings of revulsion, etc, were brought on by fear. It was about this time that I was certain I was losing my sight (projection, not fact)." "My feelings were very mixed about leaving home and school and really being on my own. It was a good feeling and yet frightening. The last thing I wanted to do right then was to help

Value of Forewarning

Origins of Feelings

Fear of blindness

someone who was blind when I couldn't even help myself! Many times I didn't care if I never saw another blind person nor even another handicapped person again. I became afraid of blindness for myself as I realized the possibility of the handicap to anyone."

□ The third level began to emerge in long discussion sessions, both individually and in small groups. Here the interns questioned whether life without sight was really worth living or whether they could ever, without hypocrisy, suggest to a blind person that such a life was meaningful until they had understood it better themselves. Here also emerged questions about "the purpose of life," "whether or not there is a God," and "what kind of justice is it for some people to be blind." Many admitted that such discussions were not usual for them. They said that philosophical and religious questions that had been basically academic in the past had now assumed a reality in this environment. It seems to be on the level of these questions that the sense of helplessness reached its peak. As one person noted, "Whereas I could escape from these questions in my usual routine, here I had my nose rubbed in it day after day, hour after hour, simply by being confronted by blind people endlessly. I had never been forced to think about such serious things for so long a time in my life. I could not escape and I realized how poorly prepared I had been by my school, my church, and my home to confront these issues."

In the meantime, how were groups two and three—the sighted who had been confronted with blindness before and those with personal visual problems—reacting to their prolonged exposure to other blind persons while interning? During discussion, the sighted with previous exposure said that they were having no new feelings, but that they could recall a similar process when they had first met blind persons especially if they had been adults when the encounter took place. Those who had a blind person in their immediate family or a close friend with whom they grew up could not remember an emotional impact. They tended to accept blindness as "a fact of life."

The attitude of interns with visual problems was summed up by one who said, "Having been blind for many years and having associated with many partially and fully blind, I had adjusted and had no new experiences." The frustrations in these cases were directed more at those with sight; as one intern concluded, "I have no depressions in working with the blind. My only frustrations are caused by sighted persons who do not understand the complexity of blindness." They also expressed how greatly their awareness had grown of the diversity of blind persons, and how they had tended to judge the experience and reactions of all blind persons by their own experiences. Exposure to large numbers of other persons with visual problems helped them to develop "greater objectivity." One indicated, "I found that just being blind doesn't prepare a person to work with blind people; training is needed."

□ Groups two and three, therefore, did not experience the intense emotion with which group one had to cope. Once the intense reaction had begun with the persons in group one, how did they deal with it? The responses fell into four main categories: 1) suppressing emotions, 2) giving vent to emotions, 3) discussing emotions, 4) and understanding emotions. Some said they sup-

Philosophical Questioning

Effect of previous familiarity

Effect of personal visual handicap

Coping With Negative Reactions

pressed the feeling by carrying on in a determined way in order to not let the inner feeling affect the outer activity. Others, who followed their inclinations, gave vent to the emotions by crying and withdrawal (a few said they went out and "got as drunk as possible" in order to "forget"). Most of the interns, however, did not experience relief until they began to talk to other persons about their feelings, explored them, and realized that they were not alone in their responses. Discussion usually resulted in greater understanding and a reorientation of their view of blindness in relation to themselves and others. The persons to whom they turned included staff members and other interns. Some of their direct comments reflect their feelings during this phase of reaction: "I responded by crying, talking to others, and taking walks alone." "I cried at times and then discussed the feelings with the director." "When reassured by others that I was not alone in this personal fear of blindness, my apprehension as well as my revulsion disappeared."

"I developed new insight by developing a positive attitude and not stereotyping the group. I had to accept these problems as part of the training." "I tried to take it one day at a time." "I was so relieved when I found out I was reacting normally." "A new light came shining through the darkness as (the director) explained some of my feelings to me and helped me to understand that I was not the only one that had to make this type of adjustment both to life and to blindness. From then on life was ten times easier. I became involved with the trainees, the professional staff, and the professional intern staff. Working with some of the other interns gave me encouragement and helped me a great deal in further understanding myself and my feelings. I then felt a need to try to help the new interns who arrived later on."

□ With the passage of time, how did the group of interns feel after they had been working with the blind for several months? Some have occasional re-occurrences of emotional feelings, but much less intensely than the first response. Most expressed the "routine nature" of dealing with blind persons now. Some feel anxiety when thinking of losing their own sight. A few of their direct comments are revealing: "I have learned that the blind can 'do.' I believe 100 percent in the rehabilitation process. I admit that I frankly still experience ups and downs, but if one client is rehabilitated it is all worth while." "After training it appears that I could much more easily cope with blindness if I lost my own sight; however, I hope I never have to find out!" "It is a fact of life. I respect the accomplishments of totally blind individuals. I feel a need to help and sometimes a fear of blindness happening to me, although there is no reason to fear it." "At this point I can accept blind people as just people. During my training time I had many doubts that I could consistently play the role of an instructor without becoming personally involved." "I believe if given proper training, blindness is not as bad as it seems to be, but if I were to become blind I would be as afraid of blindness as I would have been had I not had the training." "I have changed jobs and have no contact with blind people or any severely handicapped individual." "At this time my feelings about blindness are 'so what?' It doesn't make any difference. Blind people can and do just about anything a sighted person would do."

New insights

Attitudes After Completion of Training

“On the ‘gut’ level I feel that to be blind must be one of the most frustrating states of being and that I personally would have a miserable time practicing what I preach on the job should I ever lose my eyesight, although I do sincerely believe that losing one’s eyesight is no reason to stop living.” “I find that after a whole year of working with the blind, I see them as persons with individual characteristics rather than as ‘blind people.’ ” “Being blind is not so terrible, per se, but becoming a useful citizen is still difficult because of blindness and I, therefore, dread it.” “I have gained a tremendous amount of insight toward blindness and can empathize with my clients in their daily frustrations, attitudes, and problems.”

□ What can be done to help a person beginning work with blind persons to deal with the emotions he may experience? The interns concurred that it helped to mention the possibility of this emotional reaction before it happened. They were then free of the additional apprehension that they were alone in this response or experiencing some illness. They felt that frequent individual and group discussions were valuable before, during, and after, in order to come to more mature awareness and insight.

Persons just beginning to work with blind persons responded differently depending upon whether they were sighted and without previous contact with the blind; were sighted and had had contact with the blind; or had a personal visual problem. Those with no previous contact experienced severe depression and frustration lasting for one or more days and a mild reaction for longer periods or recurrently. The initial awareness of this feeling was not always associated with a new environment. The first responses included weeping and withdrawal. The objective causes were identified as exposure to large numbers of blind persons for prolonged periods. The subjective causes included fear of losing one’s own sight and a pondering of philosophical questions such as the purpose of life itself. Relief came only after discussing the circumstances with others and gaining new insights. With the passage of time, blindness came to be regarded as “a fact of life,” but with personal fear of non-seeing often still present. Preparing new persons for such a feeling and providing opportunities for discussion helps them to cope with it.

Suggestions

Summary

Editor’s Note: Because it was felt that this article will be of particular interest to those working in or preparing to work in the field of services to blind persons, as well as to professionals in other fields, it is being added to the New Outlook Offprint Series. Copies of the article are available for 15 cents each. Discounts are available on orders for 50 or more copies. Payment must accompany all orders totalling \$6.00 or less. Send orders to Offprint Series, New Outlook for the Blind, 15 West 16th Street, New York, New York 10011.

NAC Assesses the Impact of Accreditation

The first results of what is to be a continuing assessment of the impact of the activities of the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped (NAC) on improving services for blind Americans show that, in their efforts to qualify for accreditation, and before achieving that status, 32 agencies in 24 states made or planned 557 changes in their function and structure, personnel administration, and social services. The survey covered six tax-supported and 26 voluntary agencies which had applied NAC's standards to their operations and submitted comprehensive self-study reports to NAC before December 31, 1971. These agencies serve about 50,000 of the more than 75,000 men, women, and children now served by NAC-accredited organizations.

□ In "agency function and structure," the most frequently listed improvements were: 1) preparation of a clear statement of what the agency was trying to accomplish, especially in relation to unmet needs of local blind people; 2) building better working relationships with other community agencies in order to avoid the isolation of blind people and to assure their participation in a full range of services and activities; and 3) developing sound budgets and financial plans. Most frequently listed in the area of personnel administration were changes designed to enable agencies to attract better qualified staff and to improve the orientation, training, and supervision of volunteers.

Although the agencies covered in the survey offered a variety of services, they all had in common the area generally described as "social services" (personal counselling and development of individualized services for blind men, women, and children). Therefore, changes planned in this area were selected for analysis in the initial assessment of the impact of accreditation. According to NAC President Peter J. Salmon, the need for basic improvements was apparent from the fact that the greatest number of changes reported in this area related to the agencies' policies, organization, and administration of social services for blind people. Second in number were the changes in the kinds of social services that would be offered. Many included much more attention to specific individual needs and improved service records to provide a better picture of what the agencies actually are doing.

□ In summing up this initial report, Dr. Salmon said, "There are some omissions from the plans of many agencies—omissions that concern us. For example, the standards stress the need for agency follow-up to see what is happening in the short-run and the long-run to the people they serve. We have received relatively few reports of plans for such follow-up. The standards also recommend more participation by and input from blind people themselves. This is something that needs further emphasis and action, perhaps experimental action. NAC hopes to develop standards to guide agencies in this respect."

557 Changes

Improvements

Summing Up

The Sonic Glasses Evaluated

ABSTRACT: *A précis of the findings from two questionnaires (169 items for the 94 users of the aid, 88 for the 21 trainers) to evaluate the ultrasonic binaural sensory aid for the blind, a mobility and orientation device invented by the author. The results, summarized in three lengthy tables, indicate that 88 percent of the users found the device useful and that only 20 percent of the trainers thought that their own training was inadequate.*

Walter Thornton, in two recent articles (1971a; 1971b), has gone a long way toward informing blind people of the operation and use of the Binaural Sensory Aid for the Blind developed at the University of Canterbury, Christchurch, New Zealand. Because of the extensive use to which he has subjected the device, he must now be the most experienced user; in consequence, he is also the most able person to say what can be expected from the aid. One man's opinion, however, is not acceptable when determining a policy to be adopted in relation to the sensory aid; the data presented in this paper, therefore, has been gathered to form the basis for such decisions. It also gives each person some chance of assessing the value of the aid in his or her setting—an equally important factor.

□ The evaluation instrument was designed to meet the requirements of a) the blind user, b) the teacher, and c) the agency administrator. Twenty-five mobility teachers were trained (six in Australia, 18 in the United States, and one in England) to use the device (while blindfolded) in conjunction with the long cane. Two were dog guide trainers who also learned to combine the use of the glasses with the disciplined handling required by the dog guide. Each teacher was to train up to eight people over a 12-month period, but various administrative and technical difficulties slowed the program down in most areas. Only the teacher in England completed his program and, in fact, almost doubled it, training 18 people in the time allotted. Nevertheless, at the time when the data were collected, over 100 people had been trained with only 10 "drop outs." The work now reported was completed in June 1972, but further training and evaluation will continue.

The evaluation instrument is discussed in detail elsewhere (Kay, 1972). In essence it consists of two questionnaires, one designed for the 25 active teachers and one for the blind users. Some 169 questions are asked of the users and 88 of the trainers. The answers, therefore, cover the program extensively. Twenty-one teachers returned their questionnaires; of the 94 sent to blind users in late May, 65 had been returned by the end of June. One cannot reliably assess the reason for non-returns when using questionnaires, but even sighted participants often fail to provide more than about a 75 percent response. All questions are in print, so a greater burden was placed upon

LESLIE KAY, Ph.D.

Professor Kay, the inventor of the sonic glasses, heads the Department of Electrical Engineering, University of Canterbury, Christchurch, New Zealand.

The Principle of Evaluation

The questionnaires

<i>Skills</i>	<i>Percentage of Users *</i>				<i>Percentage of Trainers (N = 21)</i>		
	<i>Greater Mobility</i>	<i>Less Mobility</i>	<i>No Change</i>	<i>Never Encountered</i>	<i>Great Impact</i>	<i>Mod-erate Impact</i>	<i>Small Impact</i>
Locating landmarks	93/100	2/0	5/0	0/0	58	42	0
Avoiding pedestrians in crowded areas	73/18	5/18	20/64	2/0	30	65	5
Avoiding obstacles in one's path	93/36	2/0	5/64	0/0	60	40	0
Following sidewalks bordered by grass	29/9	10/0	56/91	5/0	0	0	100
Locating doorways	80/70	2/0	17/30	0/0	58	37	5
Guidelining (shorelining)	80/36	5/0	13/64	2/0	37	42	21
Following paths with hedgerows	88/36	5/0	7/55	0/9	37	53	10
Following paths in hallways	61/27	12/18	17/55	10/0	35	55	10
Locating a clerk in a store	29/45	0/10	32/45	39/0	30	35	35
Taking one's place in a line	49/64	0/9	17/18	34/9	45	40	15
Locating a seat in a restaurant	17/9	7/0	17/64	59/27	15	40	45
Crossing a street in a downtown area	68/18	7/0	20/82	5/0	10	15	75
Traveling in moderate pedestrian traffic	76/45	2/9	20/45	2/0	21	63	16
Finding a specific store downtown	34/55	7/0	32/45	27/0	25	60	15
Seeking pedestrian assistance	46/30	5/0	32/60	17/10	40	30	30
Finding one's way in unfamiliar suburban area	59/55	7/0	12/36	22/9	15	55	30
Finding one's way in familiar suburban areas	71/36	2/0	22/55	2/9	20	60	20
Finding one's way in familiar shopping centers	71/45	2/0	12/45	15/10	60	25	18
Finding one's way in unfamiliar shopping centers	56/36	5/9	7/18	29/36	20	55	25
Finding one's way in familiar rural areas	30/40	7/0	8/30	55/30	26	42	32
Finding one's way in unfamiliar rural areas	27/50	7/0	2/20	63/30	11	47	42
Finding up curbs	38/27	10/0	50/73	2/0	0	10	90
Assessing the distance of stationary objects	98/82	0/18	2/0	0/0	70	30	0
Assessing the distance of moving objects	56/40	10/10	32/50	2/0	15	70	15
Squaring off to face objects or people	73/45	2/0	17/55	7/0	55	35	10
Finding one's way in large open spaces	34/9	2/0	49/91	9/0	15	5	80

* First figure represents long cane users (N = 43); second figure, dog guide users (N = 11).

TABLE 1

The Sonic Glasses: Ratings of Usefulness in Mobility

Question	Yes (Percentage)		No (Percentage)	
	Trainer	User	Trainer	User
Are the audible signals easily interpreted?	82	75	18	25
Do the signals from the device enable the user to discriminate fairly well between different types of objects (e.g., trees vs. poles, hedge vs. fence, etc.)?	79	93	21	7
Do users often become fatigued from the audible signals?	63	24	37	76
Is the range of objects which the device enables you to detect adequate?	89	69	11	31
Does the device provide more aid in orientation or in recognition of landmarks in familiar areas than the long cane?	94	82	6	18
Does the device provide more aid in orientation or in recognition of landmarks in unfamiliar areas than the long cane?	82	78	18	22
Do the signals from the device often create confusion in orientation?	32	36	68	64
Do the glasses give reliable information of objects in the line of travel?	94	90	6	10
Can the user determine the direction of objects from the audible signals while traveling at the normal rate?	100	89	0	11
Is the user comfortable and relaxed using the glasses?	100	74	0	26
After training has the user mastered the use of the device sufficiently well to use the glasses on his own?	100	73	0	27

TABLE 2
Responses to Questions
About the Sonic Glasses

the blind people. Where checks can be made on the viability of the data, we find it to be very high. For example, there were five who said that they had returned their aid; at the time of asking the questions nine had indeed done so. The proportion of reported malfunctions also checked with the devices received for repair. There were, in fact, several areas where data checked well. The details of the questions and answers are to be published in a future issue of the *A. F. B. Research Bulletin*. All that can be presented here is a very brief précis of the answers.

□ Questions were asked on a variety of topics such as trainee characteristics, trainer experience, attitudes to the device, effectiveness of the training program, design and convenience features of the device, skills in mobility for which the device may be particularly suited, etc. Two particularly relevant areas of interest are mobility skills and attitudes. The responses are presented in Tables 1, 2, and 3. In Tables 1 and 2 the responses of the teachers and the users can be compared; also in Table 1, the long cane user is compared with the dog guide user. There are significant differences of opinion in some areas, but these should be related to the novelty of the device and the changes it can bring about in blind mobility. The percentages do not constitute votes of popularity. Since the opinions of teachers on some skills vary greatly, it is evident that the teaching of these must have influenced the opinions of the

Evaluation Data

<i>Statement</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>No Opinion</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
After using the glasses my attitude toward them is favorable.	57	31	4	4	4
I would like to keep the glasses.	64	24	5	5	2
The benefits of the glasses make it worth the trouble of training.	60	18	9	11	2
I find the concept of using sound to aid mobility useful.	51	38	4	5	2
The benefits of the glasses justify the inconvenience of training.	50	33	4	11	4
In general things seem better for me since I've used the glasses.	40	25	22	15	7
My friends and family are positive about my mobility using the glasses.	29	35	22	11	4
I would recommend the glasses to another blind person.	39	43	13	4	2
I was very motivated to learn how to use the sonic glasses.	51	42	7	0	0
The glasses could be used to motivate mobility in blind persons where motivation is lacking.	24	33	24	7	13

TABLE 3
Responses of Users to General Attitudinal Statements

users. The variability also reflects to some extent the inadequacies in teacher training. Much better training, both of teachers and users, is now possible and this will undoubtedly lead to greater uniformity of opinion.

Several blind users were subsequently asked about the differences in opinion between themselves and the teachers. It appears that learning continues with usage and a number now find they can do things which were too difficult during training; e.g., subtle sounds are now more readily interpreted. Many teachers are not aware of this because of the lack of good follow-up procedures and inadequate personal experience. Even those who trained the teachers do not have the experience many blind users now enjoy. At this point in time, it would appear that some of the blind users could play an important role in future training programs. (This would be contrary to either the long cane or the dog guide training programs.)

□ Although the results must have been influenced by the many training, technical, and administrative inadequacies, they do show a high level of acceptance by both the teachers and the users, and many new skills have become possible. The *concept* of the device has been unanimously accepted by the trainers, and 90 percent of the users believe that it is helpful in mobility. Eighty-eight percent of the users want to keep the glasses, five percent have not expressed an opinion, and only seven percent have indicated that they do not want to keep them.

Much remains to be done with the device, particularly redesigning to reduce many of its engineering shortcomings. It was, of course, an evaluation device and limited engineering resources were made available prior to undertaking the exercise (a chicken-and-egg problem); even so, 60 percent of the users thought the glasses adequate in their present form and 85 percent were satisfied with their reliability.

Differences between trainers and users

Summary

On the question of teacher training, 70 percent of the teachers would have liked more training although only 20 percent felt that their initial training was inadequate. A greatly improved training program is now possible, but resources for its design have yet to be made available. Several blind users could perhaps now play a useful part in the training programs in conjunction with the orientation and mobility teacher; they better understand the language of the aid and the perception of the environment which it makes possible.

Teacher training

Kay, L. Sonic glasses for the blind: A progress report. *A.F.B. Research Bulletin*, 1972, No. 25, in press.
Thornton, W. The binaural sensor. *The New Beacon*, 1971, 55, 86-88. (a)
Thornton, W. The binaural sensor as a mobility aid. *New Outlook for the Blind*, 1971, 65, 324-326. (b)

Bibliography

Blindness in the Dahlak Islands

The Dahlak Islands are located in the Red Sea off the coast of Ethiopia near the port of Massawa. The prevalence of blindness among the residents is four percent; the rate for mainland Africa is 1.5 percent (except where there is river blindness or a severe pocket of trachoma) and for Western Europe, less than 0.5 percent. Of particular interest is the proportion of blinding eye diseases: there are no cases of trachoma, the leading cause of blindness in the Red Sea area; senile cataracts account for 31 percent (the average for Afro-Asia); and an almost unknown condition found only in the Dahlaks accounts for 68 percent of all the rest. A recent expedition to the islands by the British-based Scientific Exploration Society also found that at least half of all the islanders showed some evidence of loss of corneal transparency, the chief sign of the condition.

High Incidence of Blindness

□ The most popular theory about the cause of Dahlak blindness is that it is not genetic, but rather the result of prolonged exposure to the sun's ultraviolet rays. The islands are virtually without shade and are covered by highly reflective coral-sand. All of the inhabitants, even the children, are exposed to the bright tropical sun throughout most of the day as they tend their sheep and goats.

Cause Unknown

The condition was first observed in 1937 and first described clinically in 1955. According to F. C. Rodger, a member of the expedition and a fellow of the Royal Society of Tropical Medicine and Hygiene, if the ultraviolet theory proves to be correct, it should be possible to find a solution to the problem. In studying the disease, the expedition diagnosed 70 percent of the victims and collected pathological and geological material for laboratory analysis.

Optical Aids: An Interdisciplinary Prescription

ABSTRACT: The roles of the optometrist who prescribes low vision aids to partially sighted persons and the other professionals who provide training and follow-up services are related to the successful use of such aids. The necessity of acquiring general, non-optometric information concerning the prescription and the uses to which it will be put by the patient is emphasized. In an informal study involving 25 patients, it was found that eight had stopped using the prescribed aid because of changes in vision and/or changes in their visual tasks. Continued use was found to be affected by the type of lens prescribed and whether appropriate training and follow-up were provided.

Anyone who works with blind or partially sighted persons realizes the wide range of services that is available in optical aids programs. There is the "cafeteria style" program where the client is given a cursory acuity evaluation and then shown a series of magnifiers and telescopes (usually hand-held) from which he is to select the one which seems most beneficial. A more efficient system is the interdisciplinary evaluation and service program utilized at the Industrial Home for the Blind (1957) or the New York Association for the Blind (Faye, 1970). In this approach the patient is provided with social services, mobility training, psychological assistance, and health examinations, as well as optical aid evaluations. Another approach is found at the various schools and colleges of optometry. While these programs emphasize the optometric services available for partially sighted persons the importance of interdisciplinary cooperation is heavily stressed in the teaching program. The School of Optometry at the University of Alabama Medical Center, as part of its teaching program in rehabilitation of the partially sighted, conducts an optical aids program for the State Department of Vocational Rehabilitation at its Special Technical Facility in Talladega, Alabama. Each client in the vocational training program is screened to determine the extent of his residual vision and the potential for improving vision function through the use of optical aids or related vision services. Prior to the development of this program, this type of service was only available in Alabama through individual private practitioners.

□ Determining the prescription(s) that will provide the patient with the maximum functioning of his residual vision requires the input of more than just the examining doctor. Most optometrists who work with partially sighted persons will spend three to six hours examining each patient, trying to evaluate all his visual needs in relation to his present visual status. In spite of this seemingly extensive examination time, the optometrist is still seeing the patient in a "sterile environment"—the clinic or office. It is difficult (if not impossible) to evaluate all the patient's visual needs and to judge his motivations and performance accurately in the examining room. The experienced clinician *will seek out* the advice of family, friends, teachers, counselors, and other health profes-

RANDALL THOMAS JOSE, O.D.
DONALD SPRINGER, O.D.

Dr. Jose is an assistant professor in the School of Optometry, University of Alabama Medical Center, Birmingham, and director of Clinical Services for the Partially Sighted; Dr. Springer, an optometrist in private practice in Anniston, Alabama, is a clinical consultant to the School of Optometry, University of Alabama Medical Center

Wider Input

sionals regarding their evaluations of this person's attitude toward his visual handicap in an attempt to get a complete picture of the patient—his needs, objectives, motivation, personality, and capabilities (Mehr & Mehr, 1969). Then, and only then, can an effective prescription be designed and a training program be initiated.

Optical aids are not like conventional lenses (Faye, 1970; Fonda, 1970). One does not just put them on, marvel at the clarity of vision they provide, and commence to wear them comfortably full time. More often than not, in spite of all the examiner's precautions to prevent this from happening, the partially sighted patient expects far more from the aid than it can provide. The patient who sees small print visually for the first time using a 10X or 12X magnifier is so excited that he does not realize the small field of view and the one-inch working distance. This is one reason why the patient is usually brought back to the office a second time. This second examination gives him the opportunity to get a more practical or realistic attitude toward the optical aid being considered.

□ Even with the best precautions, the patient will, upon receiving the aid, be moderately over-expectant and will need to be given several training lessons to maintain motivation and enhance performance. This is an excellent opportunity for the teacher, counselor, parent, or social worker to participate in the vision rehabilitation program. Because these individuals come into more frequent contact with the patient than the doctor, they can provide better training programs and maintain the needed motivation in the patient/client. Given a small amount of instruction in the principles of magnifiers, telescopes, and other optical devices, the teacher, counselor, etc., can make a substantial contribution to the patient's development of proficiency in the use of his optical aid and improvements in his ability to function visually.

Vision rehabilitation does not end with the dispensing of an aid and the development of a successful training program. The *interdisciplinary team* (social worker, counselor, educator, family, etc.) still carries the responsibility for insuring that the patient performs at his maximum potential at all times. This requires continued surveillance. Partially sighted individuals are just like any other group of people—they are dynamic in their life-style. They are persons with vision problems; and as persons, their needs, objectives, and environments change. As these changes occur, so does the demand on vision. Aids are somewhat specific in their use and must often be modified or changed to meet these new demands (Rosenbloom, 1970).

□ Fifty patients from the Special Technical Facility were seen by one of the authors between the years 1966 and 1970. An attempt was made to locate these people through vocational rehabilitation records so that a questionnaire could be administered to each client. Eight of the clients were in Talladega and were administered the questionnaire by our optometric technician. The interviews were recorded on cassette tapes for future evaluation. The remainder of the clients were located through their individual counselors who administered the questionnaire and returned it with all the appropriate responses recorded. Specifically, we asked the following questions: 1) Are the aids still being worn? 2) What visual and/or occupational changes have occurred since the aid was

Training programs

Combatting Over-Expectancy

Continuing care

Optical Aids Study

prescribed? 3) Was the aid useful to their training program? 4) How difficult was it to adapt to the aid? 5) What type of follow-up care have they received?

The Department of Vocational Rehabilitation enthusiastically supported the study and all counselors took the time to administer the questionnaire or to respond to our letters of inquiry. Some response was received for all 50 clients: 25 questionnaires were completed; two clients were unavailable, but their counselors were able to provide abbreviated answers to the questions; 12 had moved and left no forwarding address; there were no records on eight clients; and three were deceased. From the 25 completed questionnaires, it was found that 15 patients were still wearing the correction prescribed while they were at the Facility. Two more had lost or broken their correction and had had it duplicated. This shows a 68 percent success rate in terms of continued use. While this is a respectable rate of use (Brazelton, Stamper, & Stern, 1970; Rosenbloom, 1965; Jose, 1969), we can show that a much better success rate is possible through the development of training and follow-up care programs.

Of the 17 still wearing the corrections, only four (23 percent) had changed jobs since they received the aid. On the other hand, five of the eight not wearing aids (62.5 percent) had changed jobs. This can lead us to two conclusions: 1) People who are successfully using aids apparently do not attempt to change occupations in which they are successfully functioning; and 2) Changing visual tasks decreases the effectiveness of the aid, even to the point of discontinuing its use. In either case, followup care is necessary. In the first instance, it will allow the patient mobility in his economic and social endeavors. In the latter case, the person will not be penalized for his ambitions and interests in other areas by losing some of his ability to function visually. Changes in vision needs can be expected to accompany changes in jobs and/or interests. This will usually necessitate modification of the present appliance or the prescribing of a new optical aid.

□ Even those who were successfully wearing the aids were not functioning at their best. Seven of the success group reported that even though they were still wearing their aid, they felt their performance was not as good as when they first received them. Six of them reported decreases in their vision over the last year or two. It is difficult to say if there was a physiological decrease in visual acuity or if their vision tasks became more difficult during this time. In either case, this strongly suggests the need for regularly scheduled follow-up examinations. Ten people have not received any professional care since their initial examination. It is interesting to note that six of these ten are still wearing their aids and four are not. The six still wearing their aids all had their initial examination within the last three years. The four not wearing their aids were all examined six years ago or more. These partially sighted people have gone six years without any vision care. Even the general population is strongly urged to receive annual checkups for health evaluation and an optometric visual analysis every two years. The significance of a program of regular vision care cannot be stressed too much for these people. A simple yearly checkup could rehabilitate 50 percent of our so-called failure group.

The success group was asked to report any other tasks they would like to

The responses

Changes in visual needs

The Success Group

Multiple prescriptions

"see enough" to perform. The obvious response was to drive. With the advent of new programs for driving with telescopic spectacles (Korb, 1970; Kelleher, Mehr, & Hirsch, 1971; J. Newman, Tampa, Florida, personal communication), this is not an entirely unreasonable request; but for the majority of these clients, vision, as indicated on the available records, would be too poor. Two patients on cursory review of the examination data may be eligible for such a program. Nine of the group made reasonable requests for the following: seeing to read, learning to read faster, working with electronic gear, doing auto mechanic work, doing some plumbing around the house, going fishing, and developing mobility skills. While some of these requests may be impractical, one can not judge their practicality until an attempt has been made to satisfy these needs either through the optical aids program, through continuation of their training program, or a combination of both. If the counselor is aware of the limitations and frustrations of using optical aids, he will be able to serve as the liaison between the client and doctor and to assist the program by observing the patient outside the clinic and encouraging him to use the device for visual tasks not specified during the original examination and training program. He is also in a position to maintain or enhance the patient's motivation to use the aid by providing tasks in the training program that the client can successfully perform (Mehr & Mehr, 1969). The more the client uses the aid in his training and/or educational program, the greater success he will have in using the prescription. This type of program requires a seldom found coordinated effort between the counselor/teacher and the examining doctor. Somehow the two always seem to get separated in the "departmental confusion." Because of this interdisciplinary gap, the patient fails to achieve all that he could if appropriate communications were maintained.

Liaison between client and doctor

□ Complicated microscopic and telescopic systems are not the backbone of an optical aids program. In this study, the following were prescribed to the 25 patients (five of whom received multiple prescriptions): one magnifier (3.3 percent), seven microscopes (23.3 percent), two telescopes (6.6 percent), ten bifocals (33.3 percent), and ten single vision (33.3 percent). It is evident that most prescriptions (66.6 percent) are distance corrections and/or "stronger than normal" bifocal or reading glasses. (These percentages would be different with other groups.)

Types of Aids

It is not a lot of sophisticated microscopic and telescopic optical aids or bizarre-looking devices that make a successful optical aids program. Most prescriptions are the result of utilizing special examination techniques specific to the needs of the partially sighted patient (Faye, 1970; Fonda, 1970; Korb, 1969). While these prescriptions certainly are not conventional corrections, they do not involve the extremely close working distance, reduced field, and aberrations of the microscopic or telescopic aid. The significance of this lies in the adaptation to the aid and the training needed to function successfully with the device.

Special examination techniques

Of our success group, only four (23.5 percent) were given microscopic or telescopic corrections. Of the eight not wearing their corrections, five (62.5 percent) were given microscopic or telescopic corrections. This rather dramati-

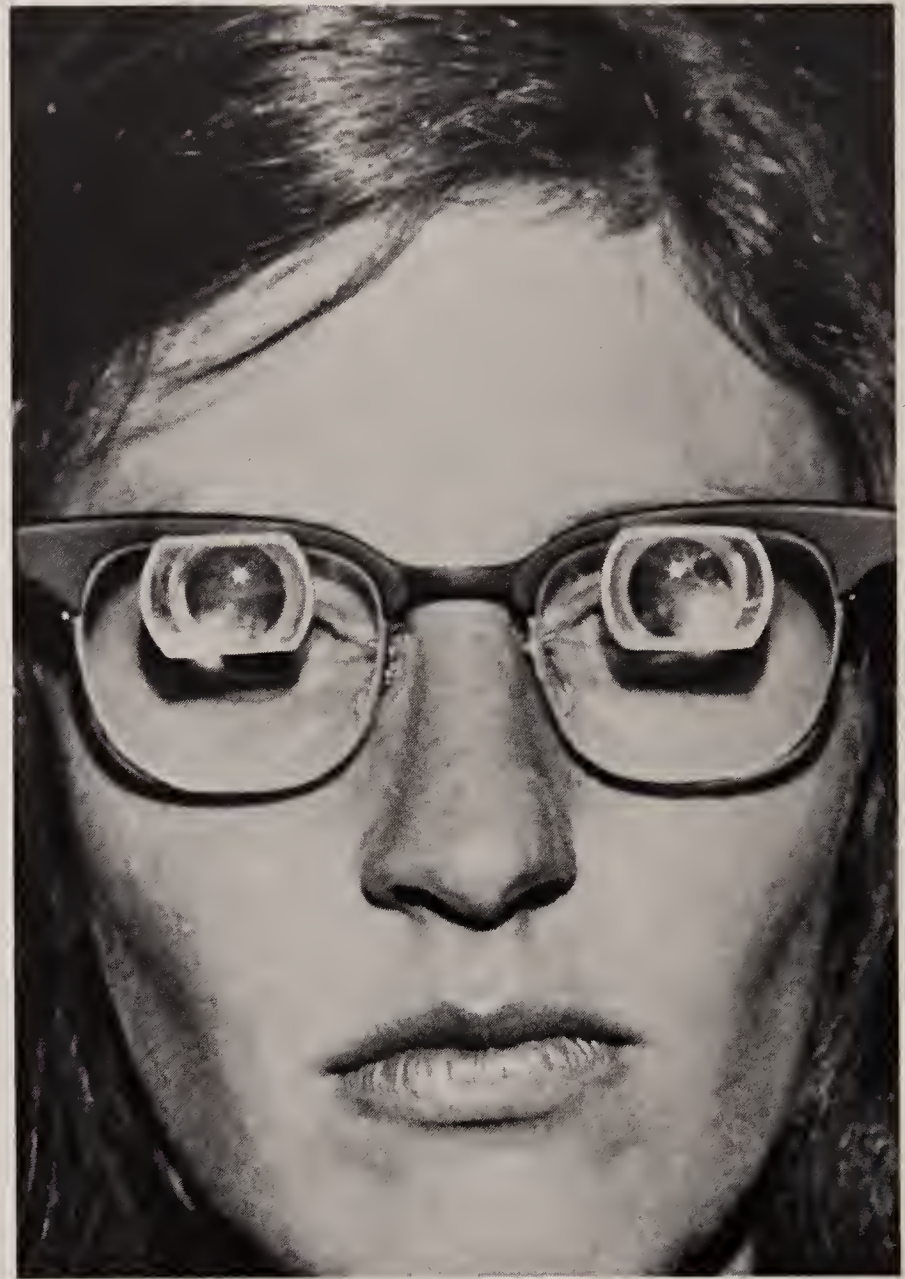
The need for special training

cally indicates a need for better training and follow-up programs when a microscopic or telescopic system is prescribed. The weakest prescription given in this category was a 2X system. This aid requires a five-inch reading distance. Bringing the print this close to the eye is difficult and tiring to the patient. The more recent the vision loss, the greater will be the tendency to push the material back to a "normal" reading distance of 10-16 inches (Rosenbloom, 1970). It can be seen, then, what problems were encountered by the two patients receiving 20X corrections that require a working distance of less than half an inch. Training is a vital factor in the success or failure of this type of prescription.

Spectacle telescopes present the greatest difficulty in adaptation. Because of this, few of these devices are used in most optical aid programs. Fonda (1970) even states that they should not be used at all. This feeling arises from the attempted use of full-field microscopes some years back. The patient was looking through a magnified world all the time and lost his spatial localization. With the advent of the bioptic system, the patient can move into the magnified field for observation of detail and then quickly back into the unmagnified field for unhampered mobility (see Figure 1). This telescope has proven itself an excellent aid for many vocational tasks requiring a relatively long working distance.

FIGURE 1

Telescopic Spectacles. Left: A full field telescope through which the patient sees a magnified field all the time. Right: A bioptic system with which the patient can look through the telescope for magnification or underneath it for an unmagnified view.



(Brazelton, Stamper, & Stern, 1970). In our study, one of the patients (a service station operator) is still using the telescope on the job, while another never adapted to the telescopic device. He reported, "It makes me too nervous." Several other reasons given for not wearing the prescribed aid were: 1) "I couldn't read fast enough"; 2) "It was too confusing"; 3) "Just didn't help"; 4) "Couldn't walk with them;" 5) "Couldn't get used to bifocal"; and 6) Light reflections off the lens. The questionnaire could not determine how much of the problem was the individual's and how much was actually due to the aid. On the surface these reasons appear to be correctible with proper orientation and training programs. If we assume four of the eight could be trained to use their present aid or be prescribed another correction, then there would be an 84 percent rate of success with these people. Four of the eight were still enthusiastic about being re-examined and being helped with another type of optical aid. One person wanted to get a dog guide and another requested referral for cataract surgery.

The clients were asked if they thought that they needed more training. Three responded "yes," five responded "not sure," and 17 said "no." It was interesting to note, however, that of this group of eight, six were prescribed microscopic spectacles. This again points to the need for additional out of the office training for these people. Four of these clients were from the success group and four from the failure group, so the need for additional training is not the result of an inability to use an aid. Training is needed to insure that the patient is getting maximum use of his residual vision and performing at his best.

□ An aspect of vision rehabilitation that is often overlooked by the optometrist is mobility. Each client was asked if his ability to travel had improved with the acquisition of the optical aid. Seven clients responded affirmatively. Of these, two were congenital myopes who were given a better distance correction using the special examination techniques; there were congenital cataract patients who also received improved distance corrections; one had retinitis pigmentosa and found improved vision with the distance correction; and a telescopic spectacle correction (2.2X magnification) was prescribed for one client diagnosed as having glaucoma with subsequent visual acuity and visual field losses. (This last individual did not report using the telescope as an aid in mobility.) The use of optical aids to enhance the mobility potential of the severely visually handicapped patient is not routinely considered in the optical aid prescription. This may be an area of rewarding investigation for a study group of optometrists and mobility instructors to pursue. While the present instrumentation is limited, perhaps the modification of present aids in conjunction with a modification of mobility training techniques may prove to be quite effective in enhancing the mobility of the partially sighted client.

It was not the purpose of this study to collect conclusive statistical data for a particular aspect of an optical aids program, but rather to interpret the raw data collected and utilized to support the authors' already established philosophy concerning the appropriate and effective administration of an optical aids program. The most significant factor revealed is the established need for follow-up care programs. It is much too easy for a client to "slip between the cracks" and be forgotten in the system.

Adaptation problems

Training for maximum use

Enhancing Mobility

Conclusions

□ Seventeen of 25 clients receiving optical aids during their vocational rehabilitation training program were successfully wearing their aids after 41 months (median for the group). Factors affecting the success of the optical aid prescription were 1) vocational changes; 2) vision changes; 3) unmet vision needs; 4) motivation; 5) type of prescription; and 6) training. When an optical aid program incorporates an effective training program and follow-up care scheme, these factors become less significant hindrances to the successful utilization of optical aids in vocational training and/or educational programs. The ultimate key to success is "communication and cooperation."

Summary

Brazelton, F. A., Stamper, B., & Stern, V. Rehabilitation of the partially-sighted. *American Journal of Optometry and Archives of the American Academy of Optometry*, 1970, **47**, 612-618.

Faye, E. E. *The low vision patient: Clinical experience with adults and children*. New York: Grune & Stratton, 1970.

Fonda, G. *Management of the patient with subnormal vision*. (2nd ed.) St. Louis: C. V. Mosby, 1970.

Industrial Home for the Blind. *IHB optical aids service survey: First 500 cases, March 1953 to December 1955*. Brooklyn, New York: Author, 1957.

Jose, R. Getting started in the low vision field. *Optometric Weekly*, March 20, 1969, **60**, 19-24.

Kelleher, D., Mehr, E. B., & Hirsch, M. J. Motor vehicle operation by a patient with low vision: A case report. *American Journal of Optometry and Archives of the American Academy of Optometry*, 1971, **48**, 773-776.

Korb, D. R. A simplified procedure for prescribing low vision reading lenses. *Journal of the American Optometric Association*, 1969, **40**, 812-817.

Korb, D. R. Preparing the visually handicapped person for motor vehicle operation. *American Journal of Optometry and Archives of the American Academy of Optometry*, 1970, **47**, 619-628.

Mehr, E. B., & Mehr, H. M. Psychological factors in working with partially-sighted persons. *Journal of the American Optometric Association*, 1969, **40**, 842-846.

Rosenbloom, A. A. Clinical aspects of subnormal vision: An analysis of 1,000 cases. Paper presented before the Contact Lens Section of the American Academy of Optometry, December, 1965.

Rosenbloom, A. A. Prognostic factors in low vision rehabilitation. *American Journal of Optometry and Archives of the American Academy of Optometry*, 1970, **47**, 600-605.

Bibliography

Editor's Note: Because it was felt that this article will be of particular interest to individual visually handicapped persons, the parents of visually handicapped children, workers and teachers, and professionals in related fields, it is being added to the New Outlook Offprint Series. Copies of the article are available for 15 cents each. Discounts are available on orders for 50 or more copies. Payment must accompany all orders totalling \$6.00 or less. Send orders to Offprint Series, New Outlook for the Blind, 15 West 16th Street, New York, New York 10011.

What Does It Mean To Be “Legally Blind”?

ABSTRACT: A short article reprinted from the Australian magazine Faithfully Theirs, in which a mobility instructor explains the measurement of 6/6 (metric) or 20/20 for normal vision and 6/60 or 20/200 as “legally blind.” Tunnel vision is also explained. That the partially sighted person can indeed “see” is placed in the perspective of having a cut-off line for eligibility for specialized services.

During a recent lecture on low vision I removed my glasses and stated that without their aid I was legally blind. Not everyone accepted this at first—in fact everyone looked at me as if I were jesting.

The legal definition for blindness in Australia states that anyone with visual acuity (sharpness of vision) which cannot be corrected above 6/60 is to be considered legally blind. This arbitrarily determined level of vision has been established in several countries and its purpose is to have a measureable point for determining when an individual's vision is impaired enough to warrant social welfare benefits.

When I take my glasses off, I do not really become legally blind. I am only left with 6/60 vision which can be corrected to normal as soon as I put on my glasses.

□ Normal vision is stated in standard terms as 6/6. This a metric measurement with six meters equalling 20 feet. The figure 20/20 is the same as 6/6. Likewise 6/60 is also 20/200. Years ago, a person in the northern hemisphere was said to have normal vision if he could see a small star just off the end of the handle of the Big Dipper.

Medical science has since adopted the use of Snellen Chart measurements to determine normal vision (6/6 or 20/20). A person reads a chart of letters from a distance of 20 feet. If he can read a certain line on the chart without glasses he has 20/20 vision. It is determined by the person reading a letter of a certain size which the average population can also read from the same distance. If the person can only read the top line, which is a single letter, without glasses he is said to have 20/200 or 6/60 vision. This means that he would have to move closer still as the print became smaller further down the chart.

With the help of eye-glasses, many people's sight can be improved to 20/20. When eye glasses do not help because of a medical condition which glasses will not have any effect upon, and the person's vision cannot be corrected above 20/200, he is considered to be legally blind.

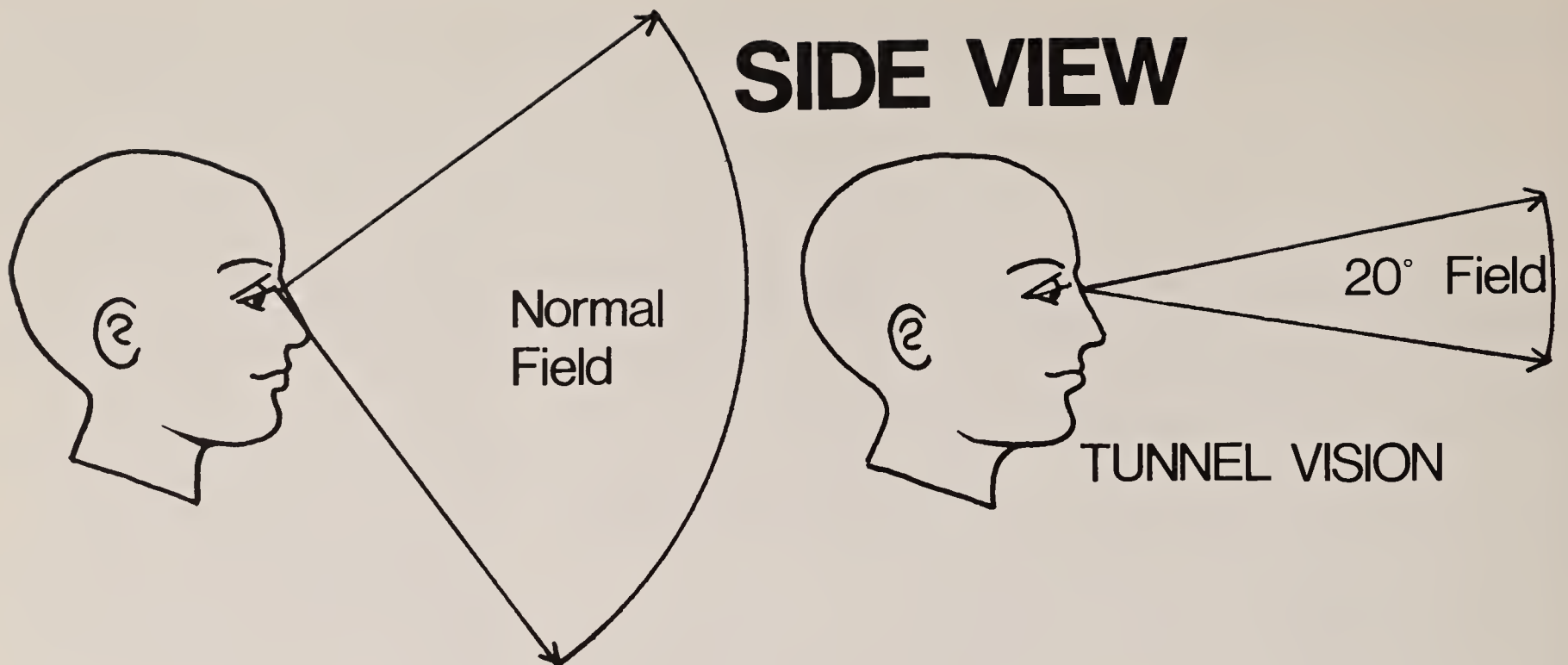
□ In the U.S. another classification is used to determine legal blindness. It takes into consideration a reduced field of vision. As you look straight ahead without moving your eyes, you can also see objects on each side of you and above and below your line of sight. This is peripheral vision. If a person loses his peripheral vision to the extent that his angle of vision only takes in 20 degrees

JAMES S. LISKA

Mr. Liska, who has a degree in orientation and mobility from Western Michigan University and has worked in Veterans Administration Blind Rehabilitation Centers in the United States, is now an instructor at the Training School for Orientation and Mobility Instructors sponsored by the Australian National Council for the Blind and the Australian Council for Rehabilitation of the Disabled.

Normal Vision

Tunnel Vision



or less in the better eye, he is considered legally blind, even if he has 20/20 vision. This condition is often called tunnel vision (see Figure 1) and can be duplicated by looking through a drinking straw with one eye. Imagine the problems you would have with such a limited field of vision.

People who are classed as legally blind are also entitled to services from agencies for the blind. Agencies are often called "Agency for the Blind and Partially Sighted," and it is becoming more widely accepted to refer to people who are legally blind as people with "low vision."

□ To conclude we may ask: "Does a partially sighted person have sight or doesn't he? Does he only have half his sight or a quarter or a tenth?" A legally blind friend of mine once gave me a good answer when I asked how far he could see: "Why, I can see 93 million miles—there's the sun over there!"

Reprinted from Faithfully Theirs, June 1972 issue, with the permission of the publisher, Royal Guide Dog Schools for the Blind Association of Australia.

FIGURE 1

How Far Can He See?

**Index for Volume 66 of the New Outlook (1972)
Is Included With This Issue**

Trends Affecting Designs for Service

ABSTRACT: The architect-author calls for the re-examination of many of the basic assumptions made by those involved in designing the delivery of services to handicapped persons. He contrasts the old mechanical, linear, fragmented approach in planning with the emerging trends toward simultaneity, inter-involvement, sensitivity, awareness, and fulfillment. Normalization, as a proper goal of services, is fully discussed along with the ways in which agencies, decision-makers, professionals, and parents block its realization.

Editor's Note: The following article grew out of a talk given by the author at the Western Regional Conference on the Visually Handicapped Child Who Functions on a Retarded Level, sponsored by the American Foundation for the Blind, June 10-12, 1971, in San Francisco. The theme of the conference was "Today's Environment for Living and Learning." Although Mr. Sokoloff's remarks do not specifically deal with any particular aspect of work with blind or visually handicapped children, it was felt that his speaking as an architect and planner about the complex factors that affect living and learning environments and about the role of proper planning in achieving the best environments would be of interest to many readers of the New Outlook. The careful analysis and evaluation of assumptions and goals is, as Mr. Sokoloff points out, of critical importance whenever service facilities are being built, planned, or altered.

Some time ago I was present at an architectural presentation of a plan to help upgrade 23 state institutions housing 28,000 mentally retarded and mentally ill people. The team of architects had spent two years and conferred with 50 people to come up with a very sophisticated solution. First, they had a systematic analysis of how to program the building reconstruction so that there would be no need to consult with those at each of the institutions about what was required in the way of facilities. They developed a series of "units" that would work either for the mentally ill or the mentally retarded. They had wards, hygiene units, dining units, and so on which could be put together in various ways to minimize duplication of effort. Second, they had developed a building component system so that these components could be constructed quickly and somewhat inexpensively (although that would depend on volume purchasing).

□ What they had done was a disaster! It was the right answer to the wrong question. They should not have been asked to rebuild an institutional system, but to help phase it out. A system with 28,000 people in it is much too big and indicates a disregard for community programs and facilities, not to mention anything resembling normalization. Such architectural planning encourages expansion. As the buildings grow bigger, staff relationship problems increase to where the administrator no longer knows the names of his own staff, let alone those of his charges. The design called for 34-bed wards; my kids don't

H. DAVID SOKOLOFF, A.I.A.

Mr. Sokoloff is president of Sokoloff, Hamilton, Blewett, A.I.A., Architects and Planners, San Francisco, and president of the California Association for the Retarded.

The Wrong Question

sleep in 34-bed wards. We don't drive machinery to clean the halls in our house. We don't have floor drains in our dayroom. This is not the way people live, and it does not train people to live in the real world. It is analogous to the paradox of taking people involved in criminal acts out of society and placing them in a totally artificial authoritarian environment in order to teach them to live in normal society; and we seem surprised that we have high recidivism.

Problem design implies that there are choices about the problems you want to solve. If you are going to be involved in planning facilities, you have to know something about the process of planning and something about the future, because you are creating the future. To know something about the future, you have to know something about change.

□ To my mind, planning usually falls into two categories, multi-purpose planning and multi-dimensional planning. Multi-purpose planning, which is essentially external, is an advance over single-purpose planning. The great number of inter-involved factors in most large projects today require the more complex multi-purpose planning; otherwise you end up creating a colossal mess. Multi-dimensional planning is the internal part of the process. Such an approach avoids the problems of two-dimensional planning in which we consider only the obvious physical aspects of safety, maintenance, circulation, etc., and keeps before us the fact that there is also an interplay between humanity and maintenance and between humanity and technology. For example, if in a hospital ward for the elderly, you develop a highly sophisticated nurses' call system with television monitoring and other technological gadgetry, you might, from an administrative point of view, do a beautiful job; but the patients will die because they are not being touched and have very little personal contact with those who are caring for them.

Buildings affect people, but usually with a secondary linkage effect. The physiological response of people is very large indeed. Although people can adjust to almost anything and still survive, it is wise to remember that in planning a building, you do plan the role relationships for the people who will use it, staff, patients or clients, visitors, and families. To enlarge somewhat on this area, consider the following example. If you build a building and put a cyclone fence around the whole site, you are saying something to the people who go past that building about what is going on inside. You are saying, "We're protecting you from those inside. Keep away." If the quality of the inhabitants' lives depends in part on the attitudes of the public toward them, you have affected this attitude by the cyclone fence and you should, therefore, be aware of the implications of your decision to erect the fence. If you provide separate toilets for staff and patients in an institution, you have set some role relationships between staff and patients; the staff have become officers/aristocrats and the patients have become GI's/peasants. Further, such role relationships tend to remain the way they are set.

□ What is important is that you know the implications of your choices. I once saw a facility being built to house 30 difficult-to-handle children. On the outside it reminded one of a cottage, but on the inside it was to be a maximum security prison. There were 30 single rooms with concrete floors, concrete

Planning, the future, and change

Two Categories of Planning

Role relationships

Implications of Choices

ceilings, concrete walls, a concrete platform for a bed, and one window. This building to house 30 children cost \$365,000 to build. The question which must be asked is "What's the problem they are trying to solves?" And as the problem is articulated, so the solution comes. Perhaps, therefore, it is the problem which needs to be reconsidered so that a better solution will be forthcoming. Another implication is that this building is going to have to be used for a long time and at full capacity. The juvenile delinquency laws may even have to be toughened up in order to keep it filled, because there will always be pressure to justify the past decisions that led to the building of such a maximum security facility.

Because whatever is designed and built is for use in the future, understanding how to look toward the future is an essential part of the planning process. Once you build it, you are locked into a particular view of the future. But today is significantly different from yesterday and tomorrow is going to be significantly different from today. The reason for this, very briefly, is that we have had a tremendous explosion of information in the recent past and it is increasing at a fantastic rate. We have huge technological advances, instantaneous information transmission, and a population implosion creating a very great inter-involvement that is utterly new.

□ I am a middle-aged person, trained in a certain way, who is an extension of his tools and training. I am essentially a mechanical man, thinking in a linear, sequential, fragmenting, specialist way. I am also competitive. The new world, the world of the young people, is an electronic world, one of simultaneity, of inter-involvement, of generalism, and of sensitivity, awareness, and fulfillment. These two views are significantly different, but they do point up some of the key trends which are taking place in our society and which we can project into the future. This changing value system characteristic of our evolution to a post-industrial society has been well articulated by Maslow, Fromm, Leonard Holt, and the new psychiatrists like Laing. This overall trend, which is I think both qualitative and quantitative, is further influenced by related shifts toward accountability, consumer input in the decision-making process, and the emphasis on service occupations rather than those involved in the production of goods.

These trends are also to be noticed in the health and welfare delivery system. Things that once were private are tending to become public; those that were voluntary are becoming legislated; those that were privileges are becoming rights; those that were permissive are becoming mandatory; those that were remedial are becoming preventative; and the trend toward institutionalization is moving toward normalization.

The manifestation of these trends is quite easy to see. Comprehensive health planning is starting to look at the effects of programs or facilities on one another. The Developmental Disabilities Services and Construction Act is to be the funnel through which monies for such programs and facilities will come. At the moment, it only covers those with problems of mental retardation, epilepsy, and cerebral palsy, but it is a mechanism which is certain to expand because it begins to look at the person in terms of his whole life span and his developmental stages both within his family and his community. And there is the move

Looking toward the future

Generational Differences

Noticeable trends

Comprehensive health planning

toward what are known as HMO's, Health Maintenance Organizations. The largest HMO in the country is the Kaiser Health Plan, a prepaid system in which the emphasis is on keeping people healthy rather than taking care of them after they become sick. And then, of course, there is the move toward a national health insurance program, in which the cost of keeping people healthy is spread across the board.

□ Returning to the idea of normalization, referred to above, I think it is the key to anything you may do as far as building is concerned. Essentially, normalization means making available the patterns and conditions of everyday life for the retarded person, using the norms found in the mainstream of society. Normalization applies to the rhythm of the day; for instance, regardless of the degree of handicap, a child should get up and get dressed because normal kids get up and get dressed—they don't spend the day in bed. It applies to the rhythm of life; you move out of the home for work—you do not eat, sleep, and work in one room. The choices and desires of a handicapped person are considered.

Additionally, normalization means living in a heterosexual world; that means both the world of staff relationships and the world of social relationships. It means normal standards for facilities. It suggests that we need to give people those supports, as they need them, which will permit them to gain the maximum amount of independence, as opposed to giving them care so that they are protected from life. We are reluctant to allow people to make mistakes, to take risks, particularly our own children. No one is totally independent, however. Because a person is handicapped and receives money from the public trough, it does not follow that you may then remove him from the mainstream of society and segregate him to care for him. It always intrigues me to talk to people who have a large investment in the institution system and to hear them strongly justifying and defending that system. It has occurred to me that the purpose of eating is not to keep cooks employed.

□ Normalization is a progressive concept. What then are the barriers to progress? The first barrier is the volunteer agencies themselves. They tend to be fragmented and they compete, even though they go to the same sources for the same monies to give to the same people. The blind have done very well. I am amazed at how well, not only financially but also attitudinally in a society which conceptualizes them as "good people"; society's view of other handicapped people is not always so generous. Another group of people who are barriers to progress are parents. I am one myself. We have a 20-year-old retarded girl, and we tend to be protective and not very good at allowing her the dignity of decision-making and risk-taking. Something appears to happen when a parent has a damaged child. A certain amount of guilt is internalized, and you tend to protect the child so that you can continue to keep him a child; this becomes a way of assuaging guilt-feelings. In the retarded children's movement the parents are more geared to giving care than they are to the giving of independence.

There is another group of people who I consider barriers to progress—the decision-makers. There is the classic blocker who comes through as the epitome

Normalization

Hoped-for results

Barriers to Normalization—Agencies

Parents

Decision-makers

of responsibility. He and his kind are the villains; they have the bank trust officer syndrome. What this really means is that it is a lot safer not to initiate things that may go wrong. He is not responsible then for something that is not happening. Actually, it is lack of imagination and a lack of guts.

The fourth group blocking progress are the professionals. If a patient fails to respond to treatment, it is not altogether his fault; if a child does not learn, it is not the child's fault. It is interesting that if you take a five-year-old to France and let him play in the street, he will learn to speak French. But consider how difficult it is to teach French to a high school student; we really have a very low rate of success in teaching French in our high schools. Such a fact should give us some grave misgivings about our teaching techniques. The professionals are locked into certain ways of thinking; they are extensions of the tools that they use. The psychiatrists, who for some strange reason seem to be most liberal in the articulation of their humanism, very often are reactionaries in their views on service delivery. They wear psychiatric glasses.

□ All this has a rather interesting effect on the youth of our country. They see these things not as honest mistakes, but as hypocrisy—and they hate us for it. I fall into this trap myself, because I am a linear, sequential, fragmented specialist and I can not help it. What we can all learn from the young is that we can do a lot better if we will put out some antennae and become a little more sensitive.

Further, it must be realized that the solutions to problems are often comparatively simple with our great technique and great technology. It is the identification of problems that is most difficult. We must give resources to this part of the planning process. We must not look to other people's two-dimensional solutions; we must really start to think in terms of what it is that we want the society to be like and how what we are doing is going to affect the future of those for whom we have responsibility and commitment.

Professionals

Reaction of Youth

Identifying the problems

Ten-Year Study of Diabetic Retinopathy

Begun by the National Eye Institute

Patients are now being enrolled in a nationwide cooperative research study to evaluate new methods of treating diabetic retinopathy—a progressive disorder of the blood vessels of the retina stemming from diabetes, and the second leading cause of blindness in adults in this country. Supported by grants from the National Eye Institute, a component of the National Institutes of Health, U.S. Department of Health, Education, and Welfare, the ten-year, \$5 to 7 million study will eventually involve over 1,800 patients at 16 clinical centers across the country. Eight centers participated during the first year of planning.

The mechanism underlying diabetic retinopathy is unknown, but the condi-

Evaluation of Treatments

Underlying mechanism unknown

tion seems to involve progressive impairment of the retinal circulation. The chief immediate causes of blindness from diabetic retinopathy are bleeding into the vitreous (the clear jelly-like fluid which fills the posterior three-fourths of the eye), scar tissue formation, and detachment of the retina. All of these conditions are usually preceded by the growth of newly formed blood vessels along the internal surface of the retina. It is from these vessels that hemorrhages into the vitreous occur and it is at the sites of new vessels that scar tissue forms. Subsequent shrinkage of the scar tissue and of the vitreous, to which the new vessels adhere, is the immediate cause of retinal detachment.

□ The primary objective of the cooperative study is to determine whether photocoagulation helps preserve vision in patients with diabetic retinopathy. In this therapy an intense beam of light is directed into the eye and focused on a tiny spot in the retina. Light is absorbed by the retina and converted to heat, causing minute burns. In some cases the light applications are made directly over the patches of new vessels in an attempt to coagulate and occlude them, while in others the applications are scattered in a checkerboard pattern over large areas of the retina in the hope that there will be an indirect beneficial effect on untreated areas of the retina.

Although photocoagulation has been used extensively in the treatment of diabetic retinopathy in recent years, its true value has not been clearly documented. Furthermore, the several available methods of photocoagulation have not been tested against each other. For this reason patients in the NEI-supported study will be randomly divided into three groups. One group will be treated with white light from the xenon arc photocoagulator, a second group with the argon laser, which generates a fine but intensely brilliant blue-green beam of light, and a third group with a combination of these two methods. Initially only one eye of each patient will be treated, while the other is followed as a control. Only if photocoagulation is proved beneficial will treatment of the second eye be considered. Knowledge gained from the study would be used to select the method most likely to help that eye.

Initially every patient will be given an extensive eye examination and a comprehensive medical examination. Photographs of the retina will also be taken before treatment to provide objective evidence of the presence of diabetic retinopathy and to classify the stage of the disease and after to assess the effects of treatment. Follow-up examinations will continue for five years.

□ A Diabetic Retinopathy Study Coordinating Center has been established in the Division of Epidemiology and Biostatistics, Institute for International Medicine, University of Maryland, Baltimore. A Fundus Photograph Reading Center is operating at the University of Wisconsin in Madison. The eight clinical centers are located in the following institutions: Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore; University of Wisconsin, Madison; Bascom Palmer Eye Institute, University of Miami (Florida) School of Medicine, Miami; University of Minnesota, Minneapolis; Washington University School of Medicine, St. Louis; Massachusetts Eye and Ear Infirmary, Boston; University of Illinois, Chicago; and Jules Stein Eye Institute, University of California at Los Angeles Center for Health Sciences, Los Angeles.

Photocoagulation

Three treatments to be tested

Photographic records

Cooperating Institutions

Orientation and Mobility Instruction for Blind Individuals Functioning on a Retarded Level

ABSTRACT: Experience at the Orange Grove Center for the Retarded, Chattanooga, indicates that blind youths who function on a retarded level can be taught orientation and mobility skills through an emphasis on very basic pre-cane skills and the addition of more intermediate steps in the standard teaching techniques.

The program for blind persons 16 years of age or older (and a few who are younger) at the Orange Grove Center for the Retarded, Chattanooga, Tennessee, is operated in cooperation with the Tennessee State Services for the Blind (Johnston, 1971). The main thrust of the program involves the realistic evaluation of each retarded blind person in situations which approximate those obtaining in the world outside the center. This "total life" approach to training and rehabilitation maximizes each trainee's chances for making a satisfactory personal, social, and vocational adjustment once he leaves the program.

□ From the outset of the program in 1969, one of the key areas of evaluation and training, in addition to daily living skills, communication, and pre-vocational skills, has been mobility and orientation. Due quite possibly to the anxiety generated by exposure to a new set of requirements and situations, most of the referrals to the program are very apprehensive and unsure of themselves. This anxiety, which has been referred to quite often in the literature on blindness (Bauman, 1954; Cutsforth, 1951, esp. pp. 239-44; Cholden, 1958; Carroll, 1961), is alleviated to a significant extent in the Orange Grove program by immediate application of appropriate orientation techniques. The techniques utilized are based on a behavioral framework which is very goal-oriented. The procedure involves reducing the process of learning mobility and orientation into steps that are as small as possible, teaching the necessary behavior required to master a particular unit (or evaluating the ability or inability to master the unit), and proceeding to the next unit in the process. An orientation to immediate goal attainment and behavioral techniques is necessitated by the comparatively low functional levels of the trainees and the comparative lack of knowledge exhibited by them with anything even approximating mobility skills.

It was evident from the inception of the program that despite the chronological age levels represented by the trainees, many hours of evaluation and training would be needed prior to the introduction of even simple cane skills. As has been mentioned in previous literature (Cratty & Sams, 1968), persons with low functional levels need to perceive at least the gross aspects of their body before being required to make more complex judgments regarding the acquisition of higher-level skills such as cane travel. It was found that many

BENJAMIN C. JOHNSTON

MICHAEL C. CORBETT

Mr. Johnston, formerly the school psychologist at the Orange Grove Center for the Retarded, Chattanooga, is completing his doctoral studies in special education at George Peabody College; Mr. Corbett, formerly a mobility instructor at the Orange Grove Center, is pursuing a master's degree in orientation and mobility at Western Michigan University.

The Presence of Anxiety

Low functional levels

of the Orange Grove trainees were grossly deficient in their ability to perceive the functions of their body, its position in space, and how to control it in an effective and realistic manner. A practical example was a trainee who functioned at a moderately retarded level, who was very disoriented, and whose idea of cane travel was to drag the cane *behind* him as he walked. The initial steps in the orientation and mobility program for this person were, therefore, sense training, body image training, self-protective body techniques, trailing with the hand, and sighted guide techniques. Once the trainee had mastered the set criteria for the attainment of specific goals and behavior and had the behavior incorporated into his repertoire, he was less apprehensive about and much more prepared for lessons in cane travel.

Incorporated into the mobility training program are several areas that most people, including those who are blind, take for common knowledge. One of the more elementary training phases includes orientation to the restroom. A male instructor orients the male trainees and a female instructor the females. After having been given some general instructions and guidelines, the trainee is instructed in squaring up and making sure both lids are raised, marksmanship, flushing afterwards, and washing hands. They are instructed that toilet tissue is usually within an arm's reach on a wall either to the right or left and that paper towels are almost always within an arm's reach from the sink.

□ Much time is devoted to body orientation and concept building exercises. We have found that regular calisthenics, in conjunction with swimming and outdoor activities, makes a good program of exercises. Various classroom exercises with inanimate objects and with other trainees are also provided. For example, we have found that many of our trainees do not know how to relax in a standing position; we find that they often hold their arm and leg muscles rigid, with the head and neck at odd angles. We have managed to work out this problem by incorporating appropriate exercises for this with other sense training. For example, in one exercise the trainees are asked to walk around the room bumping into each other; they then stop and tell as much as they can about the people they bumped into. During this exercise they are asked to all of a sudden "drop dead." One trainee is called upon to go around the room and check the other trainees to see if they are "dead." (If their arms and legs flop lifelessly back to the floor then the trainees are pronounced "dead.") In addition we have trained clients to stand in a relaxed manner, to stand with arms crossed, to stand with one hand on hip, to shrug their shoulders, to nod yes and no, and so forth.

Most trainees have led quite sheltered lives and, for the most part, have had everything done for them. As a result it has been found that the trainees have difficulty remembering instructions and directions. Therefore, during training the individual is given many assignments dealing with instructions to be followed sequentially. This becomes quite helpful later on in mobility when the trainee is asked to remember a somewhat involved route.

□ As more of the trainees began to move into cane travel, it was noted that they often still appear somewhat awkward with the cane, with it getting in their way more often than not. A morning exercise conducted two days a week by the mobility instructor was begun in order to remedy this situation.

Elementary instruction

Orientation and Concept Building

Following instructions

Cane Drill

The class was called cane drill and included such exercises as the following:

- 1) In the sweep-in, the trainee extends his cane tip on the ground as far out in front as possible and makes a semi-circle ending directly behind him. In this manner he can locate a shoreline or any other object.
- 2) He practices changing hands with the diagonal cane technique. Some trainees have been noted to grasp the cane three different times in the process of changing hands.
- 3) He is asked to toss the cane from hand to hand.
- 4) He taps the cane in unison and to music.
- 5) Each makes 90 degree, 180 degree, and 360 degree turns while keeping the cane close to the body.
- 6) He assumes a position with the cane tip near the toes, one hand on the top of the cane, and the other hand around the handle.
- 7) The screen technique is one we have the audacity to name even though most blind people use it to some extent, because most of these trainees would not know to use it unless shown. In this technique the cane is held vertically just below the handle and directly in front of the body. It is actually a modification of the diagonal cane technique and is useful in familiar and semi-familiar areas, such as in finding a seat in a crowded theater or a bus. Also by placing the cane near a door and moving the hand left and right, it is very easy to locate door handles (even on cars), thus eliminating a lot of unnecessary groping. We are sure that this sounds like regimentation but in practice it is not. Our philosophy is: "If you are going to carry a cane, then use it as much as possible and listen to what it is saying."

Some modification in teaching the basic Hoover technique has been necessary. Rhythmic exercises in the classroom are extended after pre-cane training to include rhythmically tapping the cane in the drill exercises to make an easier transition to cadence. The double tap, used to get back in step, has proved a nemesis for many and only the more advanced travelers seem to be able to use this. A piece of notepaper-size cardboard placed under the elbow has proved useful in teaching the Hoover technique and under the upper arm in teaching diagonal cane. For some who get confused when having to turn a street corner for the first time, it has been found that by having them walk all the way to the curb, extending the cane arm out in the desired direction of turn (with the cane tip on the ground), and making a 180-degree turn in that direction, the cane will be pointing in the desired direction.

□ It became evident very early that many of our trainees had no concept of street traffic and arrangement of buildings in, say, a downtown area. To facilitate training in this area, a model was made of a two-street intersection—complete with sandpaper sidewalks, center stripes, stop signs, and telephone poles. The model was constructed so that it could be changed to demonstrate a two-lane or four-lane intersection or a square block. Using this model the trainees were asked to drive the plastic cars around corners and through intersections in order to understand how traffic actually flows on a street. By changing the model to represent a city block, the trainees could count and examine the corners on a block. They could easily be shown that there is more than one way back from a corner that is diagonal to the starting point. We have found this model most effective when immediately followed by a travel lesson in which the material presented is demonstrated.

We have done some work using photoelectric cells in connection with a

Modifications in teaching

Learning About the City

Device to teach walking straight

buzzer in learning how to walk a straight line. With the electric cell units spaced about 30 feet apart, the trainee is asked to walk a straight line between the two units. Usually the better travelers work best in an arrangement of this type, since it only takes about one step in order to step out of the beam and start the buzzer. We intend to modify this device so that it will be possible to use it with all the trainees. In its present form, the device enables the mobility instructor or a classroom teacher to have one trainee practicing with the device, while working with a second student on another assignment. At the end of the training session the trainees can then be swapped.

□ We are constructing our own canes with hollow fiberglass shafts and plastic tips. During his training, a trainee is given the opportunity to practice with the cane and upon his "graduation" he is given his own lightweight fiberglass cane. We find these canes to have less momentum and to be less likely to damage furniture; they are also less tiring to use than other types. Several trainees have reached the point where they are able to catch a city bus to the downtown area, shop, and return to the center. Other trainees who are less capable have come a long way in indoor mobility skills, while still others are rather proficient in residential travel. Parents and Orange Grove Center residence houseparents are informed of the training and progress of the individual trainees and advised about how they can assist at home or in the residence in re-enforcing this training. Regular visits are made by the project director, mobility instructor, vocational counselor, and social worker to the family homes and to the residences. Progress and problems are discussed so that everyone may keep abreast of their particular child's progress.

From having worked with these trainees it is evident that at least some have previously had cane travel training. From the level of their skills upon entering the program, however, it is apparent that they had forgotten practically everything they knew. For this reason, practice at home and in the residence is stressed. A study is needed to show the long-term results of travel training for blind retarded persons for the following reasons: 1) to determine if the present program of travel training is adequate, inadequate, or excessive; 2) to determine how quickly the trainee forgets or reverts to bad habits after training and how much he forgets; and 3) to determine if goals as set at the beginning of the mobility program were at the time realistic or in need of reappraisal.

It is our opinion that the blind retarded person can benefit from mobility training. We feel that any training which can assist one to become a viable part of his environment is valid training and should be made available to every person in need whether he is blind, retarded, or multiply impaired.

To be able to meet one's environment, understand it, and use it, is the difference between real living and mere existence and goes beyond any financial or program considerations. We should not make someone's life a burden while we as educators have it within our power to so permanently affect and improve the living potential of a retarded blind person.

Results

Follow-up research needed

Bauman, M. K. *Adjustment to blindness*. Harrisburg: State Council for the Blind, Department of Welfare, Commonwealth of Pennsylvania, 1954.

Carroll, T. J. *Blindness*. Boston: Little, Brown, 1961.

Cholden, L. S. *A psychiatrist works with blindness*. New York: American Foundation for the Blind, 1958.

Cratty, B. J. & Sams, T. A. *The body image of blind children*. New York: American Foundation for the Blind, 1968.

Cutsforth, T. D. *The blind in school and society*. New York: American Foundation for the Blind, 1951.

Johnston, B. C. "Total life" rehabilitation for the mentally retarded blind person. *New Outlook for the Blind*, 1971, **65**, 331-333, 336.

Bibliography

Blindness in Bangladesh

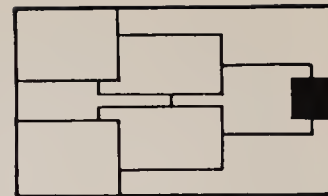
Of the estimated one million blind persons in the newly-independent Republic of Bangladesh, 300,000 are needlessly blind for want of cataract surgery, 50,000 are children blinded by vitamin deficiency. At present, there is only one ophthalmic hospital in the country and less than 300 ophthalmic beds in all of its hospitals. A nutritional program is treating only about 6,000 mothers and 3,000 children.

□ Emergency action plans include expansion of the nutritional program; the establishment of two mobile ophthalmic units, one based at the Islamia Eye Hospital in Dacca and one in the Chittagong area; institution of programs of education, rehabilitation, training, and employment for blind persons; establishment of a vocational training institute and workshop and a pilot scheme near an agricultural university; and repair of the braille press supplied by the American Foundation for Overseas Blind which was damaged during the recent war of independence. These efforts are being led by the newly-formed Bangladesh National Society for the Blind with assistance from the Royal Commonwealth Society for the Blind and the Indian National Association for the Blind. Assistance is also being sought from the United States, the United Kingdom and the countries of the Commonwealth, and other nations.

The Problems

Plan of Action

Editorial Notes



Some Changes in the New Outlook

Since last June a number of changes have occurred in the *New Outlook for the Blind*—changes that the editors hope you have noticed, and liked.

These are the expansion from the usual 32 pages to 40 or 48 pages per issue; refocusing of articles toward the practitioner; the addition of several new sections in the back of the journal; and with this issue, the appearance of abstracts preceding each article, as well as the reappearance of M. Robert Barnett's "Hindsight," last seen in January 1964.

The increase in the number of pages is having several results; we can occasionally publish somewhat longer articles than before; we can run more articles each month, thereby, we hope, cutting down the lag between acceptance and publication; we have more flexibility in scheduling; and we have been able to add and expand the columns in the back.

Perhaps the most exciting change, to the editors, is the new "Comment" column, begun last June, in which readers are offered the opportunity to express their own points of view about previously published articles, to present new information or findings, or to react reflectively to problems or issues in the field of service to blind persons.

At the same time, we have reinstigated "Letters to the Editor"; these differ from

"Comments" in that they are shorter (350 words or less versus 350 to 1,000 for a Comment) and are confined to correction of fact or brief statements of information or observation.

With the articles, we are trying to focus clearly on the needs of the practitioner in the field, be he teacher, rehabilitation counselor, or social worker. This means we will devote more effort to making sure that all articles, regardless of subject, are directed to the practitioner; for example, if an article deals with research about some particular subject, we will attempt to interpret or translate the findings to show clearly how it affects the practitioner.

In another effort to make the journal more readily useful, we have with this issue, begun running abstracts at the beginning of the articles. These will be submitted to the Council of Abstracting Services which provides abstracts for a number of other journals. Guides for the preparation of abstracts are available on request, as are the new guidelines for contributors, which appeared on page 344 and the inside back cover of the November, 1972 issue.

The extra pages allowed us to expand the "Additional Listings" to the "Current Literature" section. The latter is concerned solely with material on blindness which is

available from the American Foundation for the Blind's M. C. Migel Memorial Library. The additional listings are publications or articles that the editors think might be of some interest to readers, because of their relationship to the various disciplines within work for the blind. If you have suggestions, send them on.

Years ago the *Outlook for the Blind* and then the *New Outlook for the Blind* routinely reviewed books, but at some times, we have had neither the space nor the organization. October saw the initiation of a review column for books, films, etc.

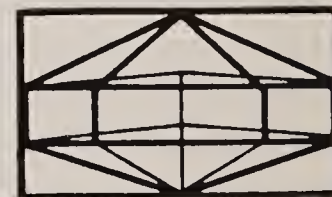
And finally we reintroduce "Hindsight," long a popular feature, but not written for eight years. We hope that the readers of the 1970's will find it as entertaining as did the readers of the 50's and early 60's.

We look forward to your comments and letters about the *New Outlook*, its articles, and the recent changes. More are still to come in the next few months.

And to the readers of the recorded issue, please bear with us, as we solve the problems of getting 48 pages of material on two sides of one ten-inch record. We're working on the problem, along with other ways of making the *New Outlook* more useful and interesting to all its readers.

—P.S.S.

Hindsight



Inside Hindsight

A few years ago, we received a pointed inquiry from Verner Ljunggren of Stockholm, Sweden. He wrote as follows: "Ex-

cuse me for writing to you. I should be very grateful if you would be kind enough to give me an explanation of the 'Hindsight' appearing as a headline in the *New Outlook for the Blind*."

Readers may question the word as it is used—and abused—as a title for this department, but no one ever posed such a specific question about the meaning of the word itself. We consulted "Webster."

According to him, "hindsight" actually has two meanings: one is its real and serious meaning; the other is marked as the humorous usage of it. Number 1, a noun: the rear sight of a firearm. Number 2, also a noun, but humorous: perception of the nature and demands of an event after it has happened; opposed to foresight.

Those definitions made us very happy. In the first place, the humorous meaning is exactly the application of it that we had in mind when we named this column. The items appearing herein are supposed to treat subjects in a reflective way—sometimes humorously—and with the immodest presumption that by so doing all of us would gain some knowledge from such reviews. It also should be noted that even the serious meaning as reported by Webster can be turned to advantage. As I remember from the days before I became blind, most firearms are equipped with both a front and a rear device, each called a sight. In attempting to puncture tin cans tossed on the surface of a pond or the head of a defenseless rabbit, one needs both hindsight and foresight.

Notwithstanding all this, we can sympathize with the puzzled Swede. For example, one might reason that the word has something to do with seeing something. Well, Webster goes on to give definitions of the word "hind," which in this instance may be what we are supposed to be seeing in the sight of this column. The word "hind" can be the adult female of the red deer, and we'll bet that is just what it is to a zoologist. To a fisherman in some parts, however, a hind is a category of grouper, including such fish as the rock hind. What's more, a hind is an assistant to a farmer in some other parts, although the dictionary isn't specific as to the nature of his duties.

We assure you that we have no intention of seeing any of the foregoing. The sight—or, pardon—the sights of this column are supposed to be trained on matters affecting blind persons, reflecting or commenting upon events or announcements after they have happened. Once in a while we might forgo this strict definition, and use the space for commenting

pro or con about something that looks as if it were going to happen.

A Test of Literacy

At the time this was written, the national election that now is history was just a few days off. For some weeks prior, the Foundation had been using the media to inform all concerned about provisions for assisting blind persons to vote in the several states. Even I had the chance to editorialize over New York radio station WQXR.

In New York, voting is simple. Registering to vote is something else again. I overheard one lady say that the state does everything it can to make it impossible. It is the literacy test that presents a particular problem for the blind person—yes, but even more so for the registration clerks.

I had no trouble answering all the questions about when and why I was born; the color of eyes and hair; height and weight; marital status and place of residence and for how long. It was time for the literacy test. With a shock, the clerks discovered I could not read. I suggested they might accept the fact that I am a college graduate. Did I have my diploma with me? Embarrassed, naturally, I hadn't realized that everybody carries their diplomas around with them.

I suggested braille. They wouldn't know whether I was reading or making something up.

Identification cards were thought of. I got out my wallet and began proffering various samples: American Express, Social Security, honorary member of Blinded Veterans Association, member of the President's Committee on Employment of the Handicapped—nothing doing.

Then my membership card in the National Association of Social Workers turned up. Excitedly and happily the clerks clamored that that would do. Evidently they think that every member of the NASW can read and write.

Going Up?

The trip to Washington that Sunday turned out to be one of those that make

you wish you had taken the train instead of a plane. Weather and traffic conditions caused delays upon delays, and it was quite late when I finally reached the Continental Hotel.

Now, for those of you whose lives have not included frequent stays at the Continental, I have to explain that this is a hotel that has become more of a habit than a habitation. For well over a decade—possibly two—folks in the rehabilitation field have had something of an unwritten law about it being where one stays on the occasion of Washington visits. Needless to say, many of us who are blind have gotten to know both the personnel and the physical arrangement quite well, and the personnel and the physical arrangement have gotten to know us just as intimately—probably wishing at times that we would find accommodations elsewhere.

After years of accepting the unchanging Continental at its face value, and after years of contentment in its confines and with its service, one neither asks for nor expects changes. And so that night I rushed from my cab to the desk with the customary friendly help of the doorman—late for a dinner engagement on the outskirts of town. Registration and the sending of the luggage upstairs required but a minute, and I returned immediately to the waiting taxi outside.

Later that evening I returned. A night man on the door "cued" me to the elevator with the customary ease of manner. He indicated that he would take me to the fourth floor—that being where my room was.

It also is customary to be running a bit late the following morning—a meeting at HEW, someone picking you up in a cab downstairs, "Please be ready," and all that sort of thing. And so I finished the cup of room-service coffee, combed the hair, struggled into topcoat, and located white cane. Deftly I strolled down the corridor to the elevator and just as gracefully and confidently found the call button.

I was rather surprised at the promptness with which the elevator responded. It slid rather more quietly than usual to a position in front of me and the door opened

with only the nicest of sounds. I stepped aboard—moving steadily, but with that sense of on-the-ready-just-in-case-the-cage-is-full-of-other-guests. It was empty.

Stepping sensibly to the rear of the cage, I spoke with early-morning cheerfulness: "Lobby, please, and how are you today?" There was a rather noticeable silence, and as I wondered what had happened to the operator's spirit of friendliness, the door slid back across the entrance.

Being something of the quick-witted type, I knew instantly what had happened. The Continental had gone modern and put in self-service elevators in the month since

I had been there last. Pleased with my alertness—even at that early hour—I moved immediately to locate the push buttons.

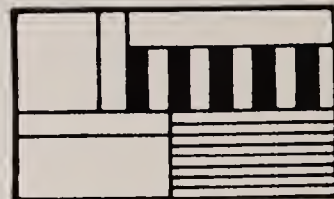
About 15 minutes later I stopped briefly in the course of several trips up and down. By now, my confidence was shot and I would no more attempt to leave the semi-comfort of the cage to brave the strange outside world than think of flying. Two men started into the cage, and I jauntily covered my growing embarrassment by saying in chipper style, "Come right in and watch your step. What floor, gentlemen?"

The gentlemen apparently were also the quick-witted type—probably guessing from my white cane that I am blind. "What floor do you want, fellow?" "The lobby," I said, with some of the old assurance returning now that I was no longer alone in this impossible vertical horror chamber.

Quickly grabbing the already-returning door to prevent its closing, one man said with what I thought later was real understanding in his tone, "That's right where you are, buddy."

—M.R.B.

Review



EARLY CHILD DEVELOPMENT

Three Reviews by Pauline M. Moor

Because of the growing interest in early child development at the present time, with parents and professionals trying to learn as much as possible about what might enhance the early development of any child, the editors of the *New Outlook for the Blind* have asked me to review two recently published books and a new film on this subject. Each casts light on the importance of "mothering," of nurture, of the warm, positive, parent-child relationship that is so essential in a child's early years.

As will be seen in the following reviews, this very basic pattern of parental behavior plays an especially important role in the development of a child who is handicapped. In *Elizabeth*, we find specific "mothering" behaviors described; *A Handicapped Child in the Family* tries to help parents who are unable to provide this type of environment; and *Rock-a-Bye Baby* demonstrates not only the existence of this behavior (present even in animals), but the effects of its absence on the individual creature, human or animal.

Elizabeth, by Sharon Ulrich (with Anna W. M. Wolf). Ann Arbor: University of Michigan Press, 1972. 122p. \$4.95.

"But, how can he learn if he does not see?"

This is undoubtedly one of the first questions in the minds of parents when they learn that their child is blind. *Elizabeth* is a mother's account, by means of descriptions of behavior, of a blind child's early growth, affective development, and cognitive learning.

Elizabeth was the fifth child to be born to Mr. and Mrs. Ulrich. She has two older sisters and two older brothers. Elizabeth was born prematurely, as had been other children in the family, so that early care of a young premature baby was not unfamiliar to her mother. Mrs. Ulrich writes that she was looking forward to caring for this baby; she was convinced that no matter how good the care of babies may be in hospitals, she could do a better job. "I reveled in stroking baby cream on her body, talking to her, kissing her toes, her fingers."

Then, on a regular visit to the pediatrician's office, Mrs. Ulrich was advised to consult an ophthalmologist in regard to

Elizabeth's eyes. "Within myself I already knew what the verdict would be. The specialist and his assistant again went over Elizabeth's eyes. They were very thorough and, though they were kind, it was hard on Elizabeth and she cried. When the ordeal was finally over, I could again hold her and comfort her. Then it seemed to me in the far distance I heard the word 'blind' and the doctor was saying that hard as it seems 'she' would never know the difference."

Today Elizabeth is a school-age child. The incidents, the anxieties, the sorrows, the disappointments, and the joys of the intervening years since her birth are part of this account.

Unfortunately, many parents could write of similar experiences, of their anticipations and anxieties, for there are many children today who are blind from retrolental fibroplasia, a condition which has accompanied prematurity. When sorrow strikes, one does not always feel one can share one's feelings. Moreover, it takes a certain kind of courage on the part of any parent to put feelings into words. Memory may not always be as fresh when one writes as when one is actually experienc-

ing events. Mrs. Ulrich has a talent for sharing minute details with the reader, and it is through such details that one can understand how Elizabeth has grown and developed so normally, for a child without vision, during her preschool years.

Much emphasis is placed on Elizabeth's first few months of life. In fact, the chapter called "Beginnings" occupies approximately a third of the entire volume. Mrs. Ulrich describes with sensitivity her early handling of Elizabeth, always with a smile. Any parent of a young child who is blind will appreciate such indices of development as Elizabeth's learning to sit, stand, walk, talk, and play with toys. Other parents will particularly appreciate the enumeration of those objects which were Elizabeth's toys and with which Mrs. Ulrich whetted Elizabeth's curiosity and motivated her learning. The reader, at the same time, should not overlook the principle of individualization and, therefore, should be warned about the uncritical acceptance of certain age levels as a time chart for specific developmental accomplishments. *Elizabeth* is the story of only one blind child's developmental record.

Nursery school attendance, particularly with sighted children, is desirable for many children who have severe visual impairment. It is through the experiences of a nursery school, in companionship with children who see, that the child who is blind is helped to develop positive attitudes about himself, his physical limitation, and a feeling that he is a child like other children, even though he does not see. Mrs. Ulrich's desire to have Elizabeth attend nursery school met with the teacher's misgivings when she learned that Elizabeth was blind. What would be the effect on the other children? What would she, the teacher, need to know about working with a blind child? What would the parents of the other children think?

The account of Elizabeth's attendance at the Sunny Corners Nursery School is one of cooperation between school and parent, and of a young child's natural ability to "win friends and influence people." Again, the chapter called "Willingly to School" contains many suggestions about how the nursery school teacher is

able to provide learning experiences for a child who is blind in a group of seeing children, using materials imaginatively and giving thoughtful guidance.

Though this parent may have been able, without expert counsel, to offer such "mothering" as would have been important to this child's early development, she did not do it alone. She received excellent professional guidance from the University of Michigan Child Development Project. The preface and commentary to the book, written by staff members of this project, offer valuable interpretations of the blind child's behavior. "Elizabeth was our teacher," Professor Selma Fraiberg writes. Elizabeth and her mother were seen periodically by the staff, at which time, suggestions based on what it considered normal child development were offered to the family. As the professional staff observed Elizabeth, and later other blind children, observations were made on the comparative "normal" development of sighted and blind children. The staff notes especially the adaptations made for and by the blind child as she substituted touch and hearing for the visual modality in learning. Their precise observations of Elizabeth and interpretations of her behavior add greatly to the reader's knowledge of a blind child's development. No details are omitted; for example, "We watched her hands as she was being comforted by mother, and her hands explored mother's familiar face for reassurance. . . . We learned that tracking an object on sound, reaching and obtaining that object on sound, is one of the most complicated tasks for a blind infant."

No one will doubt that the lack of vision must alter a child's learning pattern. However, it is when parents can look for and anticipate his having as normal a development as possible that the "climate" is positively conditioned for the blind child's optimal development.

The commentary which closes the book is a summary of some of the findings from the study of early development of blind children conducted by the Child Development Project in the Department of Psychiatry, University of Michigan Medical School. Persons interested in the early

development of young children who are blind will be as "enchanted" with Elizabeth as were those researchers who looked to her as their "teacher."

The reader will not only appreciate the quality of "mothering" which exists in this home, but the quality of patience and love which this mother so vividly portrays as she recounts her experiences with her family, and especially with her youngest daughter, Elizabeth, who is blind.

A Handicapped Child in the Family: A Guide for Parents, by Verda Heisler. Grune & Stratton, 1972. xiv + 160p. \$7.95.

It is natural for parents of a handicapped child to wish that they might know and be able to talk with other parents who may have a child with a similar handicapping condition. They wish to exchange ideas such as hints in teaching a child to feed himself, to dress himself, to take care of his toilet needs—or perhaps about some toy or piece of equipment which has been extremely useful in helping their child develop independence and interests outside of himself. Sometimes, the desire for sharing information of this nature has motivated the development of groups of parents, meeting periodically and usually under the aegis of a specialized agency, for the purpose of exchanging information. Experience seems to show that these groups are seldom organized and are generally fairly short-lived. Rarely have they been able to deal with parents' innermost feelings (perhaps because of a lack of professional leadership), yet the parents have acquired a certain knowledge about themselves and their own functioning which enables them to cope more satisfactorily with the problems which are presented by their child who is handicapped.

Perhaps a more effective and desirable method of arriving at this same self-understanding is through group therapy. This book, *A Handicapped Child in the Family: A Guide for Parents*, is, as the author states, "written for parents with the purpose of awakening their awareness of the fuller and deeper meanings of their reactions to their child's handicap and the

problems it brings." It attempts to stimulate parental awareness through the use of illustrative material drawn from a research group. The author claims that a mother reading this book "will enter the therapeutic experiences of other mothers struggling with similar problems and she will find herself through what she reads. . . . These glimpses into the inner world of other parents will bring the reader a new perspective on his or her own adjustment problems."

Dr. Heisler has described group therapy for parents of cerebral palsied children as conducted under a research grant from United Cerebral Palsy Research and Educational Foundation, Inc. The emphasis is upon family diagnosis and dynamics rather than upon the techniques of therapy. She has brought not only her knowledge as a psychologist to the problem of the psychological adjustment of parents to special problems of their child's handicap, but also a special understanding of the problems of a handicapping condition based on her own personal experience as a physically handicapped person. Though Dr. Heisler was working primarily with parents of children handicapped by cerebral palsy, the principles of human functioning which are discussed are universal and, as she states, "The basic principles of psychological help and adjustment do not vary according to the specific problems that life brings to the individual."

Parents of handicapped children will, therefore, recognize their own anxieties, questions, feelings, inadequacies, and strengths as they read vignettes of "Lois and Gilbert," "Jean," "Harriet," and others. A few readers may more closely identify with Pat and Brad, who had placed their retarded child in a foster home and later came to the decision that institutionalization was necessary. Their daughter was not only a spastic quadriplegic, but handicapped by a variety of developmental problems, partial blindness, and general retardation.

While this description of group therapy may be very helpful to some readers, it may also be depressing for others to read about the problems of parents of handicapped children. Possibly the author's style

of writing helps to create this effect, since she does not let the reader forget that she is writing about the effects upon the family of "a handicapped child," a phrase which she uses constantly.

Though some repetition of thinking is certainly permissible for the sake of emphasis in a report of this nature, the amount of repetition in this book leads one to believe that parts of it may have been written at different times and compiled as a single report—without the kind of editing which might have been helpful. The book is nevertheless very readable and, what could be a very depressing discussion of a handicap and its effects, is somewhat relieved by the anecdotal style and the personalization of parents.

The two final chapters, "Sunshine and Shadow" and "What Psychotherapy Can Do for You," are an account of the author's own life, beginning at age eight, when she was stricken with poliomyelitis, and continuing up through her years of college, marriage, and to her current professional career as a psychotherapist. The sensitivity with which Dr. Heisler writes in these two chapters gives more meaning to what has preceded in the way of discussion of group therapy. She describes her feelings as a handicapped child, her reactions to her family, a break with her family, and a final reconciliation with herself.

Dr. Heisler concludes, "I have tried to focus your awareness on the opportunity for growth as a person available to you by seeking a meaning within yourself of the difficulties you experience in this task of parenthood. In life, it is so easy to reach for joy, to build for fulfillment, but, when life brings you sorrow, that also has a value which can be realized in you for hope."

Rock-a-Bye Baby, produced by Time-Life Films. 1972. Sound, color, 16mm, 30 minutes. Available from Time-Life Films, Non-Theatrical Division, 43 West 16th Street, New York, New York 10011. Rental: \$30.

There are many references in literature concerned with early child development

suggesting that a child's abilities and temperament are set during his pre-school years. This film, *Rock-a-Bye Baby*, deals with the "ingredients of that mysterious mix" which is powerful enough to shape a person when he is even an infant. One of these ingredients is known as "mothering."

Mothering may be difficult to describe in words, but this film effectively suggests aspects of the relationship between a mother and her offspring which are essential to the optimum development of the infant. The film shows mothers and their children from various cultures and it is seen that a common characteristic is the physical closeness of the mother and child, including body contact and touch experiences.

The powerful effect of mothering is often most easily discernible and appreciated when it is absent. Attention is called particularly to the studies of the psychiatrists Rene Spitz and John Bowlby who traced character disorders to the isolation of infants, as might be found in institutional settings around the world, and their lack of this kind of relationship.

The introduction of material pertaining to animal research, particularly to the work of Harry Harlow with young monkeys deprived of quality mothering, not only adds interest by changing the frame of reference, but points to the universality of the need on the part of the infant, whether human or animal, for the type of affectionate fondling and care which a mother naturally gives her offspring. The viewer of this film cannot help but be impressed with the striking resemblances between the depression of the young animal following separation from its parent and that of the human baby who is reared in a setting without mothering from a constant figure.

More recent studies, such as those of James Prescott of the National Institute of Child Health and Human Development, support the findings of Harlow. Working with different species of monkeys, Prescott observed that the infant monkey raised in isolation seems indifferent to touch and acts as if touch were unpleasant. These same animals often exhibit stereo-

typed movements which have been associated with abnormal functioning of the cerebellum.

The film depicts the efforts of the scientist to eliminate abnormal behavior in animals by means of brain surgery. This method is recognized, however, as an extreme solution to the problem of such perseverative patterns as rocking and headbanging (observed as effects of deprivation) when a more practical method of prevention may be mothering of a quality conducive to the infant's optimum development.

Attention is called to the role of vision in the mother-child relationship and its significance is demonstrated by again citing the possible effects of a deprivation, such as a child's lack of sight, upon the normal patterns of mothering and the child's consequent emotional and social development.

The statement is made that parents who have children who are blind must find "special ways" of offering their children sensory experiences. Playful games involving body contact between mother and

child, such as clapping hands together, are very much a part of childhood experience. Such experiences are recognized as part of the normal act of mothering and help to produce a warm, active mother-child relationship which not only demonstrates affection but gives assurance to the child.

Another ingredient is body movement. "Children everywhere are moved." Before the infant is born he is accustomed to the swaying body of his mother; after birth, he responds to the comfort of rocking, whether it be in his mother's arms, or, as is common in many cultures, on her back. Studies conducted in the United States and abroad indicate that infants who are rocked and handled not only gain in weight and strength, as shown by their ability to grasp, but they seem "happier." An experiment in rocking prematures in incubators has also shown the positive effects of rocking on the development of the infant.

This film does not intend to simplify the understanding of the mother-infant relationship, but rather to point out its com-

plexity in animals and humans. It calls the viewer's attention to the common need of all infants to be touched and moved. Babies need tactual experiences and movement for normal development: "Babies crave and need to be rocked."

If the viewer is led to believe that the film deals primarily with blindness in infants, he may be disappointed, for blindness is only mentioned as an example of a deprivation, the effects of which may be studied for a better understanding of normal development. The geneticist will naturally challenge many statements. The film is, nevertheless, informative and will certainly leave the viewer with a feeling of the importance of quality nurturing, or mothering, in all early life.

Miss Moor, the author of two books on multiply handicapped blind children, No Time to Lose and No Place to Go (with Kathern F. Gruber), is a specialist in early childhood development at the American Foundation for the Blind, New York City.

Comment

A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be 350-1,000 words in length.

Braille Bookkeeping

Arthur J. Hallinan

Wallace R. Arms' article on "Braille Bookkeeping" (*New Outlook*, September 1972) was of special interest to me as an accountant. I stood up and cheered when I read the modifications which were made to the standard braille slate to make it

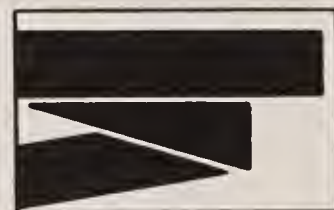
more useful as a bookkeeping device; too often, I believe, established modes of operation are considered to be of divine origin and practical changes are not dared. Mr. Arms is to be congratulated for his ingenuity and for an extremely fine article.

I have two technical suggestions:

1. With a 37-cell, or even a 40-cell, line things could get a little crowded on either the journal or the account sheets. Instead of providing separate columns for "debit" and "credit," why not use only one "amount" column and mark the individual entries "debit" or "credit"? Two symbols could be used for this purpose—perhaps *gh* with its predominance of left-hand dots for "debit" and *ing* with its predomi-

nance of right-hand dots for "credit." (Neither symbol has much else to occupy its time, anyway.) To add total debits on a sheet, the bookkeeper would run down the symbol column (probably column 31) and enter on the machine each *gh* amount; to add credits he would enter *ing* amounts. On the journal sheet he could add debits and subtract credits in one operation, trying for a zero balance.

An alternative procedure would be to retain two columns but designate the left-hand column for debits and credits, the right-hand column for "balance"—this would work only on the account sheets, of course. Presumably, in taking a trial balance under the present system, the



bookkeeper has to start adding from the top of each account sheet. Braille sub-totals under the present system would occupy a separate line; they could not be entered "in pencil" between the lines as is the common practice with sighted bookkeepers. Use of the suggested "balance" column should therefore save considerable time in truncating the additions.

2. My second suggestion concerns independence and self-reliance. As described in the article, the time of sighted assistants apparently is concurrent with the time devoted by the bookkeeper to the examination of documents; in other words, they work on them together. Was any consideration given to utilizing a reader who would tape the documents in sufficient detail on a cassette, so that the bookkeeper could then at his convenience listen to the cassette and extract whatever information was needed for the accounts?

A further refinement could be made in a slightly different situation where the vending-stand operator approved vendors' invoices for payment and sent them on to some other office for disbursement. As the reader recorded an invoice on the cassette he could read a number from a prepared tag carrying both braille and ink-print characters, and paste the tag to the document. The operator could then write his approval on the document if it was in order for payment. This procedure would further enhance the operator's self-reliance.

There is one hang-up on internal control in that arrangement, however. (We auditors are quite irritating about internal controls.) Safeguards would have to be provided to insure that after a vendor's invoice was tagged and read onto the tape, an unscrupulous individual could not remove the tag and place it on another invoice payable to himself, unknown to the operator.

To devise a safeguard against a reader committing such a fraud would probably result in cumbersome and unworkable procedures. (There is a balance that must be established between the probability and magnitude of loss from an undesirable event versus the cost or time required to

prevent that event.) But persons other than the reader could be prevented from working such a fraud by providing the vending-stand operator with a locked compartment in which to keep both the documents and the cassettes between the time he receives them sealed from the reader and the time at which he writes his approval on the documents.

Possibly Mr. Arms has already tried these various suggestions and found them wanting in practice. If not, however, they may be useful in making braille bookkeeping more efficient and the handicapped entrepreneur more independent and self-reliant.

Mr. Hallinan is a certified public accountant in University Heights, Ohio.

Teaching Braille to Slow Students

Suzanne Johnson

One of the decisions faced by many rehabilitation teachers concerns the type or level of braille instructional program which should be provided for the illiterate or almost illiterate person so that he will be able to acquire the maximum use of braille that is possible for him.

In the past, it has often been decided not to teach braille to the person with a limited academic education, as it was believed that there were other areas of instruction which would be more beneficial. This was particularly so in the home setting where the rehabilitation teacher could come only every two weeks. As increasing numbers of rehabilitation teachers moved into rehabilitation centers, however, they were forced to face the problem of how to integrate more trainees into more aspects of the total program. Thus greater numbers of students have become potential enrollees of braille classes. Further, this phenomenon provides an opportunity for extensive exploration in this area. Much recently developed generic teaching material can be utilized by the rehabilitation teacher as resource material. Many cities now have, or have had, literacy programs for adults, as do state and veterans hospitals. Much

rich material which can be obtained from these sources, as well as from adult education groups, can be adapted for the visually handicapped student.

What are some feasible goals for the illiterate or semi-illiterate individual learning braille for the first time? Actually, many of them are the same goals striven for by other adults learning braille for the first time. A majority of adults who learn braille use it primarily for listing telephone numbers, identifying possessions, making playing cards and other games, and keeping budgets; these goals would, therefore, appear to be suitable for the slow learner as well.

Are special teaching techniques required? If many of the same goals are under consideration for groups at different levels, are they achieved by different means? First of all, the illiterate person will probably learn more slowly because he must first become oriented to the concept of written communication. A large proportion of this group may learn only the alphabet or a part of it. The braille textbook will be used less since the uneducated person will not have a sufficiently large vocabulary. The instructor will have to create most of the exercises. Exercises should, for example, permit the person to write his name over and over because he has probably not had much experience doing that. In the area of academic subjects, more apprehension and less motivation might be expected from many members of this group.

It would be interesting to have comments from teachers working in the home setting concerning the ability of these people to learn braille when they must do much of the work on their own. The same type of problem will have to be faced increasingly with geriatric students who, in the past, have not generally been taught braille. Could many of these people learn the first ten letters of the alphabet which, of course, would also include the numbers?

What are some exercises which would also help develop spelling and vocabulary? Word games have been helpful to this writer in this respect. Crossword puzzles with three- and four-letter words,

writing as many forms of the same word as possible, unscrambling scrambled words, and fitting words into blanks in sentences are just a few such games. Some of the same games have also been helpful to average adults, while adding variety and interest to the lessons.

In addition to the newly blinded adult, centers also serve congenitally blind persons whose reading and writing vocabulary is extremely limited, due to retardation, inappropriate education, or other factors. Should the center staff try to improve the student's ability in this area or concentrate on other goals? If the former goal is pursued, it would involve rudimentary work in grammar adapted for the person who has been exposed to braille

all his life. This person may be a good candidate for the type of program offered by general adult literacy courses, which are not always available in the center setting. However, we have found that these people can benefit from instruction in counting money, making telephone calls, and operating radios, televisions, talking books, and record players. Many of them have never had instruction in such areas. This does not mean that some of these students could not benefit from academic training; more training in a wider variety of areas will be made available as the center expands and develops new programs.

These comments have been intended to stimulate discussion concerning work

with illiterate or almost illiterate persons. How can we generally improve services to this group of students? They are unable to take advantage of adult education courses without basic communication skills. Can we combine our programs with those of adult education in order to achieve vocational goals?

This paper has been concerned with teaching braille more or less in the conventional way since literacy programs for visually handicapped persons do not exist at the present time. This writer is of the opinion that such programs are needed.

Miss Johnson is a rehabilitation teacher at the Michigan State Rehabilitation Center for the Blind, Kalamazoo.

Letter to the Editors

Kinesics and Bookkeeping at the Pittsburgh Guild

To the Editors:

I was very interested in the September 1972 issue of the *New Outlook* as it contained two articles dealing with subjects which have been taught at the Greater Pittsburgh Guild for the Blind since its inception in 1961. I am referring to "Kinesic Training for Blind Persons: A Vital Means of Communication" and "Braille Bookkeeping." Our agency offers in-depth instruction in the use of eye contact, body gestures, and facial expressions as well as all other facets of spoken communication. All our trainees receive a spoken communication course which is reinforced in all Guild courses. In addition special emphasis on related spoken communication skills, such as body awareness and control, is a vital part of the Guild's kinesiatics course. Blind trainees receive spoken communication as many times a week as the instructor deems necessary for an individual.

Areas covered are the use of appropriate facial expressions, body gestures, eye contact, posture, and social conversational techniques. Also stressed are the elimination of blindisms or inappropriate mannerisms as well as voice control. A higher level of training follows basic spoken communication instruction. Trainees receive realistic training in the use of all the spoken communication skills required for introductions, social conversations, public and family gatherings, securing and refusing help in social situations, interviews, dining, shopping, and marketing.

In order to emphasize our realistic and total approach, let me state a few examples of our training requirements. After intensive classroom training, the trainees may go to restaurants, department stores, supermarkets, picnics, baseball games, or plays as well as many other activities which help the instructor to evaluate a trainee's progress.

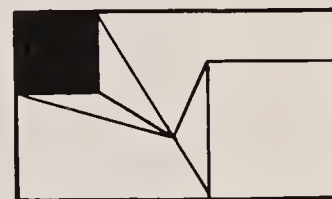
Those trainees who wish to secure employment after Guild training are required to experience two mock interviews. Our

mock interviews are arranged in coordination with business persons and other professionals in our community who interview the trainees. In addition, trainees must dress as they would for an actual interview and present a personally typed resume. The feedback received from the mock interviews as well as other social exposures prepares the trainee for actual future interviews or social experiences.

In our braille classes, the keeping of financial records, for personal or business purposes, has been an integral part of the course and is based on the double entry system. We have not found it to be difficult to teach or for the trainee to acquire.

It is our well-founded conviction that these courses must be an integral part of every rehabilitation program or the client will be "short-changed" by the rehabilitation agency.

Minnie E. Susman, B.A., LL.B.
Chairman, Education Department
Greater Pittsburgh Guild
for the Blind



OPTISCOPE™ ENLARGER

A **NEW** MEDICAL INSTRUMENT
for the **LEGALLY BLIND** and **PERSONS** with **LOW VISION**.
A **NEW** MOTIVATIONAL AID for **LEARNING**.



- clear image
- full color and black and white
- completely safe
- portable
- low cost

\$295⁰⁰

C.O.D./f.o.b. Hempstead, N.Y.

New help for the legally blind. The OPTISCOPE ENLARGER makes reading a pleasure once again by displaying large areas of type. It holds books or newspapers of any size, and reproduces in full color and black and white.

The OPTISCOPE ENLARGER is a low maintenance, portable (weighs only 14 pounds), precision instrument designed for years of service.

For ordering, or for more information, write or phone:

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322



Identification Card Programs

A valid driver's license issued by a state signifies only that the holder is legally entitled to operate a motor vehicle. Because the driver's license is issued by the state and contains considerable information about the holder—name, address, age, sex, physical characteristics (height, weight, color of hair and eyes), and including, in some states, a recent photograph—it has over the years acquired an additional connotation. A valid driver's license has become the most commonly accepted form of "legal" identification, something which most adults, frequently or occasionally, need.

The pervasiveness of the driver's license as a means of establishing personal identification and the resulting refusal of many stores and other businesses and institutions to accept any other, can create problems for a person who does not have a driver's license, especially if he is attempting to cash a check away from home or to pay by check in a store where he is not known.

Many blind and visually handicapped persons regularly face this problem—along with everyone else who does not have a driver's license, including those who don't have one by choice.

During the past year or so, considerable interest in finding ways to provide an alternative to the driver's license has developed. At the same time, serious questions have been raised concerning the possibility that such cards may be discriminatory. In an effort to put together a factual picture of the identification card question and where it stands at the moment, the *New Outlook for the Blind* sent questionnaires last summer to all of the state agencies for the blind. The questionnaire covered several aspects of the question: whether a state is presently issuing or

planning to begin issuing I.D. cards—and if neither, why not; impetus for the program; name and function of the agency issuing such cards; requirements for getting a card; usefulness of cards to holders; methods used both to publicize the availability of the cards and to convince businesses and organizations to honor them.

Half of the states replied to the questionnaire. Some are already issuing identification cards. Others are actively considering it. Still others are philosophically opposed to the idea. Some states feel that there has been no real demand for such a service.

Certain aspects of the replies can be generalized. Almost all of the states that have or are considering an identification card program report that the impetus came from blind persons themselves. In states where programs are already operating, holders of the cards find them useful or very useful (the questionnaire asked: "Do blind persons in your state who have identification cards find them useful? Very useful ____ Useful ____ Slightly useful ____ Not useful at all ____").

Most of the programs were launched with rather extensive public education campaigns that had two aims: to inform the public and the business community about the program and gain acceptance for it; to inform blind and other eligible people who might wish to participate. In Virginia, the state agency reported that the publicity brought it many referrals from blind persons who had not previously known of the services they could receive from the Commission.

Various methods were used to publicize the programs. The public was reached through the press, radio, and television. Blind persons were reached, in addition, through direct-mail contact with talking

book users, personal contact with Aid to the Blind recipients, local agencies for the blind, Lions Clubs, and, of course, word of mouth.

In other aspects, the programs differ considerably from state to state. Because of this and in order to report as fully as possible on the present situation, here is a rundown on replies received, state by state:

States With Operating I.D. Card Programs

Delaware: The Bureau of Motor Vehicles has been issuing non-driver identification cards for about a year and a half to persons without driver's licenses because of handicap, age, or other legitimate reason. Holders must be 18 years of age or older and residents of Delaware. There is a \$3 fee and the cards must be renewed every four years. About 200 blind persons now have cards.

Florida: The State Bureau of Blind Services has been issuing cards for about a year and a half to legally blind persons. Almost 1,000 persons now have the cards which do not have to be renewed.

Louisiana: The Capital City Council of the Blind, Baton Rouge, in cooperation with the Louisiana State Chamber of Commerce, issues I.D. cards to persons who do not have a driver's license, blind or not. About 200 people now have these cards for which there is a \$1 charge to cover handling.

Michigan: The Secretary of State has been issuing I.D. cards to legally blind persons for about three years. They do not have to be renewed.

North Carolina: The State Commission for the Blind has been providing cards to

legally blind persons 14 years of age or older for a year and a half. Local Lions Clubs will assume responsibility for production of cards and photographic expenses.

South Carolina: A community bank provides I.D. cards without charge for blind persons throughout the state. The card is provided upon receipt by the bank of a letter of certification from the South Carolina Commission for the Blind.

Texas: The Texas Department of Public Safety (motor vehicles bureau) issues identification cards to any person, blind or not, who submits legal documentation showing his date of birth. There is no age requirement. Cards must be renewed every four years.

Virginia: The Virginia Commission for the Visually Handicapped, in cooperation with the State Division of Motor Vehicles, issues cards to legally blind persons. More than 500 blind persons are participating

in the program which has been in operation for a year and a half. The cards do not have to be renewed.

States That Do Not Issue I.D. Cards

Arizona: A local group of blind persons is presently exploring the need for I.D. cards and the most effective ways of producing and distributing them.

Connecticut: The state agency is considering an I.D. card program and has been discussing it regularly during meetings with organizations of blind persons.

Georgia: The state agency is presently giving thought to beginning an I.D. card operation and is carefully studying the programs in other states.

Illinois: The Illinois Department of Public Aid issues I.D. cards to public aid recipients only. This program, which has been operating for 26 years, was begun because public aid checks were being stolen.

The state agency for the blind in Illinois seriously questions the movement toward I.D. cards for blind persons in lieu of driver's licenses. "Promoting special identification cards is attacking the problem in a reverse manner. To require a driver's license to cash a check is unfair discrimination."

Kansas: Neither of the two state organizations of the blind have indicated a need for I.D. cards. The Division of Services for the Blind and the Visually Handicapped has, however, been exploring the possibility of encouraging community banks and savings and loan associations to provide this service to blind and elderly persons as a goodwill gesture.

In addition, there is considerable feeling that a service of this sort should be offered on a nationwide, standardized basis through a national private organization such as that provided in the One-Fare Travel Concessions program of the American Foundation for the Blind.



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

**MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR**

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation

Maine: Neither the state agency for the blind nor the organized blind feel that this question has priority. A bill requesting such a service was introduced in the legislature recently and neither the state agency nor the organized blind supported it.

Missouri: A program is under consideration, but the need for such a service has not yet sufficiently been established.

Nevada: The idea is under consideration. Draft legislation providing for identification cards for persons 18 years of age or older who do not have driver's licenses

was introduced in the 1971 Nevada legislature, but failed to pass. Identical legislation will be introduced in 1973. Research indicates that there are many persons, in addition to the blind, who have identification problems.

New Jersey: Is considering the question.

New Mexico: Blind persons in the state are concerned about the identification problem and possible solutions are under consideration.

Oregon: The matter is under consideration.

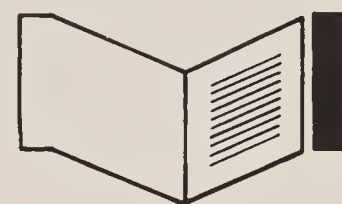
Pennsylvania: There seems to be little demand on the part of blind persons. Further information is being sought.

Rhode Island: Rhode Island Services for the Blind is working with the Rhode Island Transit Authority to develop identification for travelers only.

Vermont: Is not considering beginning such a program because most blind persons do not want identification based on disability. In addition, charge cards often can take their place.

West Virginia: Is considering instituting an I.D. card program.

Current Literature



A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

Blindness in Infants and Young Children, by Elizabeth Macfarlane Hatfield. *The Sight-Saving Review* (National Society for the Prevention of Blindness, Inc., 79 Madison Avenue, New York, New York 10016), Vol. 42, No. 2, Summer 1972, pp. 69-89. Report on a study undertaken in 1967 by the National Society for the Prevention of Blindness. Records of 3,115 children (legally blind or partially seeing) born in the years 1959 through 1966 provided the basic data for the study.

Biology and the Blind: Some Personal Observations, by Geerat J. Vermeij. *The Braille Monitor* (National Federation of the Blind, 2652 Shasta Road, Berkeley, California 94708), October 1972, pp. 531-35. Dr. Vermeij, who is assistant professor of zoology at the University of Maryland, describes some the problems he has encountered as a blind person pursuing an academic career in biology.

Tourist Eyes Turn to Blindness Isles, by F. C. Rodger. *The Chronicle* (Royal New

Zealand Foundation for the Blind, Private Bag, Newmarket, Auckland, New Zealand), Vol. 11, No. 4, June 1972, pp. 10-12. The author is an eye surgeon and tropical eye disease expert for the World Health Organization. He gives a brief report of an on-going investigation into possible causes for the high rate of blindness found in Ethiopia's Dahlak islands.

The Instructional Materials Reference Center for the Visually Handicapped, by Carl W. Lappin. *Education of the Visually Handicapped* (1839 Frankfort Avenue, Louisville, Kentucky 40206), Vol. 4, No. 3, October 1972, pp. 65-70. A report on the Center's services and activities by its director.

Variables in Tactual Perception, by John L. Parrish and Larry R. Chassen. *Education of the Visually Handicapped* (see address above), Vol. 4, No. 3, October 1972, pp. 76-79. Brief review of past research on physical and psychological factors involved in tactual perception.

Development of an Enlarged Abacus, by Roger Huff. *Education of the Visually Handicapped* (see address above), Vol. 4,

No. 3, October 1972, pp. 88-90. Field evaluation report on a prototype abacus, one-third larger than the Cranmer abacus.

A Special Case of Auditory Localization: CROS for Blind Persons With Unilateral Hearing Loss, by William Rintelmann, Earl Harford, and Samuel Burchfield. *Archives of Otolaryngology* (American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610), Vol. 91, No. 3, March 1970, pp. 284-88. Observation of two clinical cases leads the authors to believe that the contralateral routing of signals (CROS) by a hearing aid provides sufficient clues to the direction of sounds to be of significant value in the mobility training of blind individuals with good hearing in only one ear.

Behavior Modification Programs for Deaf-Blind Children: Proceedings of a Workshop Held July 13 & 14, 1970, Pinecrest State School, Pineville, Louisiana, edited by Edwin K. Hammer. Dallas, Texas: The Callier Hearing and Speech Center, 1970. 85p. (Available from Leasco Information Products, Inc., 4827 Rugby Avenue, Bethesda, Maryland 20014. Order # ED 053

Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

504; Microfiche—65c; Hard Copy—\$3.29.) Papers include: "Principles of Behavior Modification and the Habilitation of Deaf-Blind Children," by James R. Lent; "Shaping Behavior of Deaf-Blind Crib Patients," by Pat Aycock; "Medical Aspects of Deaf-Blind Children," by Ellidee Dotson Thomas; and "Administrative Considerations for Implementing Programs for Deaf-Blind

Children," by Maurice Dayan and Beryl Harper.

A Predictive Study of Employability Among the Visually Impaired With the California Psychological Inventory, by Bernard Arthur Bast. University Microfilms, Inc. (300 North Zeeb Road, Ann Arbor, Michigan 48106). Doctoral dissertation, University of

Michigan, 1971. xiii + 150p. Order #71-23,692, \$10.00. The author used the California Psychological Inventory to identify personality trait differences between groups of employed and unemployed blind men. He finds that relationships between personality traits and employability give the instrument value as an approach to employment prediction.

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind, prepared by the editors.

Agency Administration

Foster Grandparents at Work Here, by John Egerton. *American Education* (U.S. Office of Education; Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Vol. 8, No. 8, October 1972, pp. 24-29. An illustrated article about the Foster Grandparents program, begun in 1965 by the Office of Economic Opportunity and now administered as a division of ACTION. The focus here is on the program in Nashville, Tennessee. There are 136 Foster Grandparent programs throughout the United States and in Puerto Rico, employing about 6,200 older people. The article discusses the unique contribution of the program to the care of handicapped and disadvantaged children.

Keeping Healthy After 60 by 2-Way Radio, by Robert J. Ambrosino, Ph.D., and Anne M. Anzola, M.S.Ed., M.P.H. *Health Services Report* (Health Services and Mental Health Administration, U.S. Department of Health, Education, and Welfare; tearsheet requests to Dr. Robert J. Ambrosino, Albany Medical College of Union University, Albany, New York 12208), Vol. 87, No. 7, August-September 1972, pp. 583-87. A description of a project aimed at disseminating public health information utilizing a network of community-based broadcast locations. The two-way conferences allow for on-the-spot communication between

the "presenter" of information and the participants.

The Volunteer Community: Creative Use of Human Resources, by Eva Schindler-Rainman and Ronald Lippitt. Washington, D.C.: NTL Institute for Applied Behavioral Science, 1971. 148p. \$4.95. A discussion of the concept of voluntarism, societal trends which have implications for it, the motivations of volunteers, and the importance of voluntarism in a democracy and in the life of an agency.

Aging

Nobody Ever Died of Old Age, by Sharon R. Curtin. Atlantic Monthly Press (distributed by Little, Brown, 200 West Street, Waltham, Massachusetts 02154), 1973. 240p. \$6.95. A very personal survey of the life styles adopted by older Americans, the problems they face, and the ways that they can solve them.

Attitudes

A Right to Love? by Ann Shearer. The Spastics Society (12 Park Crescent, London W1N 4EQ, England). A report based on research concerning public and professional attitudes toward the sexual and emotional needs of handicapped people. Among the areas of difficulty discussed are denial of sufficient knowledge about sexual needs and expression, discouraging of marriage, the effects of prejudice and stereotypical ideas on the living arrangements of the institutionalized, the lack of sex education for handicapped children, and segregation of the sexes. Publication of the report was co-sponsored by England's National Association for Mental Health.

Directories, Catalogs, Lists

New York, New York. An instructive example of a sight-seeing and activity guide for handicapped persons. The product of a two-year study carried out by nearly 100 members of the Junior League of Brooklyn for the Easter Seal Society of New York State (185 Madison Avenue, New York, N.Y. 10016). Copies are available at \$2.00 each.

Education

Art and the Handicapped Child, by Zaidee Lindsay. Van Nostrand Reinhold (450 West 33rd Street, New York, N.Y. 10001), 1972. 144p. illus. \$8.95. Intended for teachers of handicapped children, this book includes practical information on inexpensive materials that will allow even the most handicapped children to release energy and pent-up feelings. Includes tips for drawing, modelling, carving, printing, and puppetry.

Gifted and Talented Children: Practical Programing for Teachers and Principals, by Dorothy F. Syphers. Council for Exceptional Children (Jefferson Plaza Suite 900, 1411 South Jefferson Davis Highway, Arlington, Virginia 22202), 1972. 84p. \$2.25. Focusing on practical situations, the author discusses the identification of the gifted, administrative arrangements, a principal's leadership, teachers, grading practices, productive classrooms, and evaluation. Bibliography.

Key Issues Concerning the Adoption of the Metric System and Implications for the Education of Exceptional Children. Council for Exceptional Children (ERIC

Document Reproduction Service, P.O. Drawer 0, Bethesda, Maryland 20014). Order ED-042-938; microfiche—65c; hard copy—\$3.29. A 12-page position paper, prepared by CEC on the U.S. Metric Study, in which the advantages of metrication for teaching arithmetic to children with learning problems are discussed. The expected improvements in arithmetic, the report states, can also lead to improvements in other academic subjects, especially reading.

Training for 1,000,000-Plus Jobs, by Andrew Hamilton. *American Education* (U.S. Office of Education; Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Vol. 8, No. 8, October 1972, pp. 8-11. A description of the UCLA Allied Health Professions Project, a pilot high school career education program which unites the classroom and hospital work in introducing students to 45 hospital occupations and 32 hospital tasks involving patient care.

Pamphlets

Reading Is for Everyone is a new pamphlet describing the program of the Division for the Blind and Physically Handicapped, Library of Congress (Washington, D.C. 20542). The Division has also recently released a new descriptive catalog of its publications. Both are available on request.

The New York Association for the Blind recently published a referral card flyer listing the services available at the agency and designed for use by other social agencies, hospitals, nursing homes, physicians, social workers, and other professionals who work with blind and visually handicapped persons. The card, which fits a 3 x 5 file box, also tells how to make a referral. Other agencies interested in exploring this idea may request a sample of the card from the Information Department, New York Association for the Blind, 111 East 59th Street, New York, N.Y. 10022.

Preschool Children

The Child and His Image: Self Concept in the Early Years, edited by Kaoru Yamamoto. Houghton Mifflin (2 Park Street, Boston, Massachusetts 02107), 1972. 235p. \$4.95. A comprehensive discussion aimed at helping adults to foster a profound sense of respect for the self in young children. Topics include the potential impact of early childhood education on the developing self-concept, sociocultural influences on the self, and the parental role in concept development.

Social Work

Can Computers Do Social Work? by Paul Abels. *Social Work* (National Association of Social Workers, 2 Park Avenue, New York, N.Y. 10016), Vol. 17, No. 5, September 1971, pp. 5-11. A discussion of the

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

numerous ways in which computers might be utilized in social work, particularly in counseling. The problem of safeguarding confidentiality with such a system is also examined.

Statistical Surveys

General Characteristics of the Disabled Population, by Kathryn H. Allan and Mildred E. Cinsky. *Social Security Bulletin* (U.S. Social Security Administration; Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Vol. 35, No. 8, August 1972, pp. 24-37. A summary of the findings of a 1966 survey conducted by the Social Security Administration. The demographic, family, medical, and work characteristics of 8,300 noninstitutionalized disabled adults aged 18-64 are presented. Based on a complete report by the same authors entitled *General Characteristics of the Disabled Population* (Report No. 19 of the Social Security Survey of the Disabled, 1966), Social Security Administration, 1972.

Testing

The Forecast of Fulfillment: A Review of Research on Predictive Assessment of the Adult Retarded for Social and Vocational Adjustment, by Henry V. Cobb. Teachers College Press (1234 Amsterdam Avenue, New York, N.Y. 10027), 1972. Series in Special Education. 167p. \$3.95.

Vocational Rehabilitation

Contract Packages, by David M. Sherwood and James A. Bitter. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N.W., Washington, D.C. 20005), Vol. 38, No. 5, September-October 1972, pp. 31-33. A discussion of contract packages (also called annual agreement programs, annual program packages, allocation systems, etc.), in which a state vocational rehabilitation agency agrees to pay a certain amount to a rehabilitation facility in exchange for a guaranteed level of service. The article covers the advantages and disadvantages, the plans developed in Wisconsin, Michi-

gan, and Minnesota, and the steps in developing a contract.

Welfare

A Negative-Income-Tax Experiment, by David N. Kershaw. *Scientific American*, Vol. 227, No. 4, October 1972, pp. 19-25. A report of the initial results of an experiment conducted by the author and his colleagues at Mathematica Incorporated in cooperation with the Institute for Research on Poverty of the University of Wisconsin to test the effects of a negative income tax. The New Jersey Negative Income Tax Experiment involved 1,300 families, half of whom received payments in one of eight different negative-tax plans; the balance, the control group, received no payments. It was found that such payments did not result in a decline in weekly earnings; there was a slight decrease, however, in the hours worked. The article includes a discussion of the theory of the negative income tax and the use of this type of social experiment.

News in Brief

■ Mrs. Loetta Lovejoy Hunt, developer and, for 20 years, coordinator of the teacher education program for the blind and partially sighted at Ohio State University, died August 22, 1972. In memory of her lifetime of dedicated service to children, especially those who are exceptional, the College of Education and the Faculty for Exceptional Children have established the Loetta Lovejoy Hunt Scholarship Fund. Information regarding the Fund is available from the Faculty for Exceptional Children, College of Education, Ohio State University, 1945 North High Street, Columbus, Ohio 43210.

■ The Louis Braille Foundation for Blind Musicians, Inc. (112 East 19th Street, New York, N.Y. 10003) has created a special di-

vision for the management and placement of blind musicians. Called the LBF Artists Bureau, the division will concentrate on the promotion of blind classical, jazz, folk, and country-western performers. Werner Landshoff, cellist and music educator, is the bureau director.

■ Dr. Antonio Gasset, assistant professor of ophthalmology at the University of Florida, Gainesville, announced last fall that he and a team of researchers had developed a new plastic surgery technique for the treatment of keratoconus, a condition in which the cornea thins and bulges until it becomes almost cone-shaped and vision is substantially reduced. The technique, which has been used to improve the vision of ten volunteer pa-

tients, involves a quick and gentle heating of the cornea with a tiny, pencil-shaped, steel-tipped instrument. The procedure causes the misshapen cornea to shrink gradually and flatten out over a period of several months with little or no scarring.

■ The Overbrook School for the Blind, Philadelphia, in cooperation with West Chester State College, has set up a computer-assisted instruction project. The system, built around several braille devices produced by Triformation Systems, Rochester, New York, enables students to use special computer programs in studying mathematics, English, and reading. The computer can provide individualized mod-

ules at the level and pace appropriate for each student. The project is being conducted under the supervision of Overbrook's curriculum coordinator, Miss Kathy Simpkins.

■ The Virginia Commission for the Visually Handicapped has initiated an effort to explore the possibilities of utilizing trained paraprofessionals to provide certain aspects of orientation and mobility services and rehabilitation teaching services to geriatrically blinded individuals. Funded by the New Careers Program of the U.S. Social and Rehabilitation Service, the Rehabilitation Aide Project encompasses a six-month training program prior to actual employment. The training program is conducted at the Virginia Rehabilitation Center for the Blind, Richmond, and consists of a three-month academic phase and a three-month internship.

It is hoped that besides providing instruction to geriatrically blinded individuals, the rehabilitation aide may prove valuable to agencies by providing instruction to other severely visually handicapped individuals and by providing transportation, constructing travel canes, and providing sighted guide or reader services. Instructionally, the aide is trained to provide services in the sighted guide technique, pre-cane skills, the diagonal arm technique, basic orientation techniques applicable to indoor environments, eating skills, coin identification and money management techniques, and a variety of other activities of daily living.

Additional information regarding either the employment of a rehabilitation aide or the Rehabilitation Aide Project in general is available from Robert Scheffel, Director, Rehabilitation Aide Project, 401 Azalea Avenue, Richmond, Virginia 23227.

■ *Pre-Cane Mobility and Orientation Skills for the Blind*, a curriculum guide published by the Michigan School for the Blind, Lansing, is now out of print and copies are no longer available. The school has announced, however, that those with access to a copy are granted permission to duplicate it, providing credit is given to the Michigan School for the Blind.

■ The Howe Press of Perkins School for the Blind (175 North Beacon Street, Watertown, Massachusetts 02172) has added braille to the "Golden 1973 Aesop's Fables Calendar," a colorful and entertaining children's calendar originally published by Western Publishing Co. Copies are available from Howe Press for \$1.50 each.

Appointments

■ Utah School for the Blind, Ogden: **Robert W. Bischoff**, principal (also serving as consultant for the visually handicapped for the State of Utah).

■ U.S. Department of Health, Education, and Welfare: **Emerson J. Elliott**, acting director, National Institute of Education; **Francis N. Waldrop, M.D.** acting director, Division of Manpower and Training Programs, National Institute of Mental Health; **Daniel F. Metzman, J.D.**, assistant to the administrator for inter-governmental program compliance, Social and Rehabilitation Service.

Awards

■ American Association of Workers for the Blind, Southeast Region, Regional Award: **George McFaden**, director, Special Technical Facility, Talladega Institute for the Blind, Talladega, Alabama.

■ Member of the Most Excellent Order of the British Empire (MBE): **Edward Walton Christiansen, J.P.**, director, Royal New Zealand Foundation for the Blind.

Coming Events

January 17-21 American Optometric Association, National Optometric Conference Week, San Antonio, Texas.

January 23-25 Association of University Programs in Hospital Administration, National Symposium on Long-Term Care Administrator Education, New Orleans.

January 25-28 North Central Optometric Conference, Minneapolis.

January 28-February 3 American Library Association, Midwinter Meeting, Washington, D.C.

February 2-6 Southeastern Educational Congress of Optometry, Atlanta.

February 11-14 Council for Exceptional Children and American Vocational Association, Special Conference on Career Education for Exceptional Children and Youth, New Orleans.

February 25-March 3 American Society of Contemporary Ophthalmology, Annual Meeting, Miami Beach, Florida.

March 18-21 Congress of New England Council of Optometrists, Boston.

April 22-28 Council for Exceptional Children, 51st Annual International Convention, Dallas.

April 25-26 American Geriatrics Society, 30th Annual Meeting, Beverly Hills, California.

May 3-7 Association for Research in Vision and Ophthalmology, Annual Spring Meeting, Sarasota, Florida.

May 7-10 National Braille Association, National Conference, San Francisco.

May 27-30 Medical Library Association, Kansas City, Missouri.

May 27-31 National Conference on Social Welfare, 100th Annual Forum, Atlantic City, New Jersey.

May 28-30 American Ophthalmological Society, 109th Annual Meeting, Hot Springs, Virginia.

May 28-31 American Orthopsychiatric Association, 50th Annual Meeting, New York City.

June 10-14 Special Libraries Association, Pittsburgh.

June 18-29 Workshop in Rapid Reading of Braille, Culver-Stockton College, Canton, Missouri.

June 24-28 Israel National Society for Rehabilitation of the Disabled, International Symposium on the Disabled Adolescent, Bat Yam, Israel.

June 24-30 American Library Association, Annual Convention, Las Vegas.

June 25-29 American Home Economics Association, Atlantic City, New Jersey.

June 27-30 American Optometric Association, 76th Annual Congress, San Francisco.

AFB Publications on Aging and Blindness

Art Not by Eye: The Previously Sighted Visually Impaired Adult in Fine Arts Programs, by Yasha Lisenco, Ph.D.

1972 xii + 114p. \$3.75

The Community of the Blind, by Yoon Hough Kim.

1970 151p. \$3.50

Dogmatism and Visual Loss, by Phyllis N. Hallenbeck, Ph.D.

1967 108p. \$1.50

An Introduction to Working With the Aging Person Who Is Visually Handicapped.

1972 iv + 51p. \$3.00

Proceedings of the Research Conference on Geriatric Blindness and Severe Visual Impairment.

1968 83p. \$1.50

Resistance to Cataract Surgery, by Irving Miller, D.S.W.

1964 110p. \$1.50

From the New Outlook for the Blind Offprint Series:

Aging and Blindness: A Public Symposium. 19p. 30 cents.

—Introduction, by Patricia Scherf Smith.

—Visual Function in Geriatric Eye Disease, by Eleanor E. Faye, M.D.

—Progress in the Prevention of Blindness Among the Aged, by Abraham L. Kornzweig, M.D.

—Vision Screening of the Aged, by Howard H. Hanson.

—Future Directions of Government Programs, by Barbara C. Coughlan.

—The Challenge of Aging, by Frederick C. Swartz, M.D.

Payment must accompany all orders totalling \$6.00 or less.

Order from:

**Publications Division, American Foundation for the Blind,
15 West Sixteenth Street, New York, New York 10011.**

New From AFB

Concept Development for Visually Handicapped Children

**A Resource Guide for Teachers and Other Professionals
Working in Educational Settings**

William T. Lydon and M. Loretta McGraw

Concept Development for Visually Handicapped Children discusses the importance of proper concept development and the problems blind children encounter as a result of poor concept development.

The authors, instructors in orientation and mobility, offer guidelines for working with the blind child, with a special chapter devoted to the multiply handicapped blind child.

The book includes material on how to help the child develop accurate concepts of body image and spatial orientation, so that he can achieve effective motor behavior and learn to relate to others and to his environment.

It explains what the child must know regarding the parts of his body and how they function and what he must be able to do physically. The book also includes specific teaching methods and suggested activities and exercises.

Contents

The Importance of Concept Development
How the Sighted Child Develops Concepts
Concept Development and the Blind Child
Spatial Awareness
Alleviating the Problem
The Multiply Handicapped Blind Child
Developmental Patterns of the Multiply Handicapped Blind Child
Individual Needs and Classroom Instruction
Conceptual Development
Body Image
Gross Motor Movement
Posture
Suggestions for a Posture Program
Tactual Discrimination
Sound
Olfactory
Time—Distance
Orientation and Mobility Terms
Body Image of Blind Children, Screening Test
Basic Mobility Skills and Techniques
Room Orientation
Bibliography
Selected Reading

February 1973 ☐ Revised Edition ☐ vi + 69p. ☐ \$2.00

Payment must accompany all orders totalling \$6.00 or less.

Order from:

**Publications Division, American Foundation for the Blind,
15 West Sixteenth Street, New York, New York 10011.**

THE NEW Outlook FOR THE BLIND

February 1973 Volume 67 Number 2

Confidentiality and the School:
A New Outlook Symposium

Also in this issue:

Alternatives to the Blindness System in Australia
D. L. Westaway

A Macro-Solution in Special Education
Lars Guldager

The Blind Teacher in the Educational Job Market
Thomas L. McGreal and Dennis Wiseman



THE NEW Outlook FOR THE BLIND

February 1973 Volume 67 Number 2

Articles

- 49 Confidentiality and the School
49 Introduction
 Mary Ellen Mulholland
- 50 Confidentiality and the Law
 Charles Lister
- 52 Confidentiality Policies and Practices in
 Residential Schools for the Blind
 Samuel J. Cole
- 56 Confidentiality and the School Counselor
 Carl J. Davis
- 59 Workshop Report
- 60 Classification and Maintenance of Data
- 62 Summary of Workshop Reports
 Geraldine T. Scholl, Ph.D.
- 66 Alternatives to the Blindness System in Australia
 D. L. Westaway
- 72 A Macro-Solution in Special Education
 Lars Guldager
- 80 The Blind Teacher in the Educational Job Market
 Thomas L. McGreal and Dennis Wiseman

Departments

- 85 Hindsight
- 89 Review—*Teaching About Vision; Directory of Facilities for
 the Learning-Disabled and Handicapped; Okla-
 homa-Arkansas-Kansas Regional Leadership Sem-
 inar*
- 90 Comment—Dance and Creative Movement for Blind Persons
 Marcia Rand
- 93 Current Literature
 Mary Maie Richardson
- 95 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to 75c according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief

M. Robert Barnett

Managing Editor

Patricia Scherf Smith

Associate Editors

Mary Ellen Mulholland
Michael E. Monbeck

Confidentiality and the School

ABSTRACT: A symposium based on a Workshop on Confidentiality sponsored in June 1972 by the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped (NAC). Contributions include an introduction explaining the background of the Workshop; a paper entitled "Confidentiality Policies and Practices in Residential Schools for the Blind," by Samuel J. Cole, reviewing the findings of a NAC study of the current situation; "Confidentiality and the Law," excerpts from a study of legal issues and precedents regarding the confidentiality of students' records by Charles Lister; "Confidentiality and the School Counselor," a paper by Carl J. Davis discussing the responsibilities of school personnel in protecting confidentiality; a short report on the discussion of four small workshops, including excerpts from a Russell Sage Foundation publication of guidelines on pupil records; and a summary of the issues raised during the Workshop by Geraldine T. Scholl, Ph.D.

Introduction

The individual's right to privacy, an issue once discussed only in the pages of law journals, has in recent years become a subject that is of great concern and interest to a much larger audience. This concern is legitimate. The combination of larger and more complex institutions and bureaucracies and sophisticated information gathering, organizing, retrieving, and disseminating technologies has brought about a tremendous increase in the amount of record keeping about individuals possible. There have been a number of legal cases concerning the confidentiality of personnel and government records on individuals. It is now common to read about persons who have been denied passports demanding to examine State Department files on themselves. People who have received poor credit ratings are demanding to know what in their records occasioned the poor rating.

□ Schools are not exempt from dealing with these issues. Parents are becoming concerned not only with the content of their child's school record but with who has access to the record and who can enter information in the record. Educators are equally sensitive to issues of confidentiality. They realize, perhaps better than anyone else, the possible implications of being responsible for information, much of which may be very sensitive. (See pages 50 and 52 for a brief discussion of some of the legal issues and precedents that are involved.)

MARY ELLEN MULHOLLAND

Miss Mulholland, a participant in the NAC Workshop on Confidentiality, is associate editor of the New Outlook for the Blind.

New Sense of Responsibility

Confidentiality and the Law

This has been styled the century of adolescence, and issues of educational policy have moved to the center of the national stage. For good reasons and bad, many citizens believe that questions of educational administration must be taken from the hands of educators. Various alternative forms of organization doubtless will be devised, but they must all be expected to stimulate more frequent recourse to courts and legislatures. Educational control and individual privacy, two momentary foci of popular interest, interact in questions of the confidentiality of pupils' school records. (Page 3.)

Individual v. Public Interests

The essential point is that student records raise difficult questions of policy involving individual and public interests not less significant than those customarily protected by the law. But neither are these questions for which the law offers ready answers. The issues that arise from elaborate recordkeeping have only recently begun to receive serious attention, and there is as yet little relevant guidance for their solution. Here as elsewhere the law arrives breathlessly and a little late. (Page 7.)

Recordkeeping Policies

The public schools have been a principal source of controversy in many American communities, and it should not be expected that they have developed according to any fully coherent program of goals. Nonetheless, the record policies of the schools have, until relatively recently, escaped much of this controversy, perhaps merely because they have often not been the subject of articulated rules. The informality and haphazardness of the rules for the

governance of school records may have shielded them from scrutiny. Moreover, record policies have been chiefly responsive to an assumption that, again until relatively recently, remained largely above controversy: the *in loco parentis* doctrine. (Page 9.)

Supreme Court

There is persuasive evidence that this situation is now in the earliest stages of change. The Supreme Court has observed that the condition of being an adolescent can no longer excuse wide deviations from important constitutional requirements.¹ Although the Court has moved with uncharacteristic caution, it has at least made clear that general constitutional standards will "by and large" be applicable to issues involving schools and their students.² In a phrase that may be expected to recur, the Court has reminded us that the First Amendment does not "stop at the schoolhouse gate."³ Recent state and lower federal court cases have already cut away many of the more dubious of the nineteenth-century authorities.⁴ (Page 12.)

Change of Rhetoric

There already has been an important change of rhetoric: cases that once were argued simply on the reasonableness of a school regulation, an issue upon which courts might be expected to defer to educators, are now frequently premised upon asserted violations of constitutional rights. This may often be a change merely of shading and style, but it is enough to make deference to school authorities a more subtle problem of argumentation. This, in combination with the flimsiness of *in loco parentis* and the gradual extension of constitutional restrictions, will be likely to

stimulate opinions that will differ markedly from their predecessors. If, as it has been charged, courts were once simply rubber stamps for school authorities, that moment is evidently nearing an end. With it may also end the courts' disinclination to interfere in the governance of the public schools, including issues of student records. (Pages 13-14.)

The Leading Case

The leading case remains *Van Allen v. McCleary*,⁵ decided in 1961 by Mr. Justice Brennan of the New York Supreme Court. The case involved issues of parental access, but it illuminates each of the issues of the dissemination of student records. The petitioner was informed by school officials that his son required "psychological treatment." The father employed a private physician, to whom the school furnished a report that had been prepared at its request. The physician, with the father's approval, sought permission to examine all of the son's school records. The school, and subsequently the local board, declined. The father thereupon petitioned to compel the record's release.

The court first held that no statute in New York either gave or refused parents a right to examine their children's school records. It noted, however, that the maintenance of such records was required by regulations validly promulgated by the state commissioner of education. It then examined a recent ruling by the commissioner on the question of parental access.⁶ The commissioner had received an administrative appeal from one Thibadeau, a member of a local school board, complaining that a local directive permitted

(Continued on page 52.)

The National Accreditation Council for Agencies Serving the Blind and Visually Handicapped (NAC) has for some time been concerned about the policies and procedures used in handling confidential information imparted by a student or gathered about him in the course of a school's program. From its contacts with residential schools for the blind, NAC had learned that many of them had not developed written practices or guidelines governing confidentiality. The reasons for this are easily understood.

NAC's concern

For one, the school administrator is beset with a host of problems in planning, funding, and running his school's program. In such a context, confidentiality is not likely to be given first priority. Second, decisions made by administrators on confidentiality, even when they are difficult and complex, are rarely disputed. Third, many administrators are not aware of the variety of factors—legal, ethical, and professional—which must be considered in order to develop a sound policy on confidentiality.

Nevertheless, in recent years, NAC has noticed an increase in the number of inquiries it has received concerning confidentiality. For example, an administrator who has received a request for information on a client or student might inquire whether a decision to release the information requested would be in violation of NAC standards on confidentiality.

The National Accreditation Council has ten standards on confidentiality. While they are broad and sound as far as they go, they are not specific enough to provide the answers to the many and diverse situations which can and do arise. It became clear to NAC, after studying the situation for some time, that there was a real need to clarify the variety of issues involved in the handling of student records and to examine the implications.

NAC's standards

□ Thus NAC decided to focus its 1972 annual meeting on the subject. A two-day Workshop on Confidentiality was held in Miami June 24 and 25. The Workshop was based largely on *Guidelines for the Collection, Maintenance & Dissemination of Pupil Records: Report of a Conference on the Ethical & Legal Aspects of School Record Keeping*, published by the Russell Sage Foundation in 1970. Copies of this publication were distributed to all participants in advance of the meeting. The purpose of the Workshop was two-fold: 1) to provide school administrators and staff with an opportunity to learn more about the various aspects of confidentiality and to examine their own attitudes and policies; and 2) to provide NAC with recommendations concerning revision of its standards on the subject.

The Workshop on Confidentiality

The Workshop was divided into two parts. The first included talks on various aspects of the subject as they relate to schools; the second consisted of four small workshops that discussed specific aspects of confidentiality.

Following is a *New Outlook for the Blind* symposium on the NAC Workshop on Confidentiality.

parents to inspect their children's records. He rejected the appeal, holding that confidentiality was imperative only as to third parties. He ruled that parents may examine their children's progress reports, marks, standardized test scores, medical records, psychological and psychiatric reports, and other records. Only the informal "notes" and "memory-aids" of school staff were excluded.

The court held that however persuasive this ruling might be as to educational policy, it did not foreclose the public records issue. It reasoned that school records have certain of the characteristics of both private and public records, and hence cannot "strictly speaking" be brought within the doctrine's terms. Nonetheless, the court recognized that two of the principle ingredients of the common law rules were present: the records were required to be kept by valid regulation, and parents have an obvious and legitimate interest in their contents. In these circumstances, the court believed itself constrained to hold that parents must be permitted access to their children's school records. (Pages 48-50.)

Another Case

A recent case in the lower Maine courts appears to adopt a position similar to that reached in *Van Allen*. The parents of an applicant sought to compel a college admissions office to reveal records and letters of recommendation furnished it by the student's secondary school authorities.⁷ The parents hoped to prove that the authorities had prevented the student's ad-

mission to college by providing inaccurate or unjust descriptions of his work and abilities. A lower state court held that the parents were entitled to examine the materials. The court's opinion appears to have been premised, at least in part, upon the usefulness of the materials for a separate civil action brought by the parents in Connecticut against the secondary school authorities. (Page 62.)

Conclusions

Recordkeeping has characteristically been a low visibility activity, to which the law has until recently given little attention. This has only now begun to alter, as recognition has grown of the important issues created by increasingly intensive recordkeeping. The problems of student records illustrate vividly the work that remains to be done. Although student records may create important hazards for the interests of students and parents, they have commonly been maintained and used with remarkable haphazardness. Careful rules are urgently needed to control every aspect of their collection, maintenance and dissemination. These rules need not be uniform or unvarying: they should indeed reflect accurately the purposes and activities of the schools for which they are drawn. The essential points are that the difficult issues created by educational recordkeeping should at least be recognized, and that systematic efforts should now be made to respond to those issues. In this at least, educational recordkeeping

is characteristic of recordkeeping generally. (Page 73.)

References

1. *In re Gault*, 387 U.S. 1 (1967); *Epperson v. Arkansas*, 393 U.S. 97 (1968); *Tinker v. Des Moines Ind. Sch. Dist.*, 393 U.S. 503 (1969).
2. *Epperson v. Arkansas*, *supra* at 104.
3. *Tinker v. Des Moines Ind. Sch. Dist.*, *supra* at 506.
4. See, for example, *Bd. of Edu. v. Bentley*, 383 S.W.2d 677 (Ky. C.A. 1964).
5. 27 Misc.2d 81, 211 N.Y.S.2d 501 (1961). See also, *Eisen v. Board of Regents of Univ. of Calif.*, 75 Cal. Rptr. 45 (1969); *Canon v. Justice Court*, 39 Cal. Rptr. 228, 393 P.2d 428 (1964).
6. *Matter of Thibadeau*, N.Y. Dept. of Educ. No. 6849 (Sept. 22, 1960). See also, *Formal Opinion of Counsel No. 92*, N.Y. Dept. of Educ. (November 16, 1960).
7. *Creel v. Brennan*, Civ. Action 3572, Superior Court, Androscoggin Co., Maine (1968). See 71 *College Board Review* 21 (1968).

Excerpted from Privacy in the Schools: Controlling the Maintenance and Usage of Students' Public School Records, an unpublished study by Charles Lister, associate professor of law, Yale University Law School, completed under a research grant from the Russell Sage Foundation. Reprinted with the permission of the author and the Russell Sage Foundation. (Many of these issues were presented informally at NAC Workshop on Confidentiality by the Hon. Reese H. Robrahn, judge, Magistrate Court, Topeka, Kansas, and former president of the American Council of the Blind.)

Confidentiality Policies and Practices in Residential Schools for the Blind

With the current concern over wiretapping and invasion of privacy, the National Accreditation Council has properly identified a nationwide interest in the subject of confidentiality. NAC conducted a survey in 1972 with some very interesting results. A questionnaire was sent to 50 residential schools for the blind in the United States and Puerto Rico; 48 of these schools, or 96 percent, responded. This high rate of return is another indication of the great interest in confidentiality today.

SAMUEL J. COLE

Mr. Cole is superintendent of the Governor Morehead School, Raleigh, North Carolina.

□ The survey can be broken down into three main categories: 1) procedures and policies for handling student records formalized in writing; 2) where the different types of information on students are filed; and 3) access to student records in the schools.

To the question "Do you have a written statement of your school's policies and procedures concerning the handling of confidential information on the student and his family?" 11 schools, or 28 percent, indicated "yes." Thirty-seven schools, or 77 percent, indicated that they had no written statement. Those schools reporting no written policy are apparently implementing some broad policies, even though the policies do not formally exist in writing. Another interesting statistic is that of the 37 schools which presently have no written statement, only 14 plan to develop one (Table 1). It is certainly some-

<i>Responses</i>	<i>No. of Schools</i>	<i>Percent</i>
Yes, have written statement.	11	23
No, do not have written statement.	37	77
Plan to develop statement.	14	38
Do not plan to develop statement.	15	40
No answer.	8	22

what surprising to note that so many of the residential schools for the blind which have no formalized policy governing confidentiality do not plan to write one. In today's climate, there seems to be considerable reluctance to having certain information in writing.

□ Ten of the 11 schools with written statements governing confidentiality enclosed their statements with their responses to the NAC questionnaire. The issues raised in the ten statements are:

1. Definition of confidential information on student.
2. Collection of information on the student.
3. Location of different kinds of data on the student.
4. Access to data on students.
5. The problem of judicial requests for information on students.
6. Divulging information on students: parent or student permission required or not.
7. Appropriate settings for discussing confidential information.
8. Verification of information on students, particularly behavioral and social problems.
9. Rights of parents to challenge accuracy of records.
10. Handling of student records after student has left school.
11. The use of student records for research and training purposes.

Concerning the filing of information about students, most of the schools agreed that grades, standard achievement test scores, and IQ test scores should be kept on the permanent card or record sheet. These items were considered to be less sensitive in nature. (See Table 2.)

TABLE 1
Question: Does the school have a written statement concerning the handling of confidential information?

Points Covered in Written Statements

TABLE 2
Percentage of the 48 Schools Which Keep Information on Permanent Card (Sheets)

<i>Type of Information</i>	
Grades	94
Standard achievement test scores	64
IQ test scores	56
Personality and interest test scores	42
Family background information	36
Teacher and counselor observations	36
Reports from outside agencies, clinics	35
Medical and health reports	40
Reports on extracurricular activities	44

	<i>Access to All Records</i>	<i>Access Only to Permanent Record Card</i>	<i>No Access to Any Records</i>	<i>Parental or Student Permission for Access to Any Records</i>	<i>No Policy</i>	<i>No Answer</i>
School Staff:						
Teacher responsible for the student	60	32	0	2	0	6
Other teachers on staff	44	32	6	0	8	10
Houseparents	36	33	15	0	4	12
Counselors, guidance personnel, psychologist, social workers, etc.	86	6	0	4	2	2
Administrators	90	6	0	0	2	2
Nurses, doctors, medical consultants	86	8	0	0	2	4
Other Than School Staff:						
Parents or guardians	10	22	48	4	8	8
Students	2	8	63	0	12	15
Officials in other schools or school systems	15	29	10	42	2	2
Vocational rehabilitation agencies	32	23	4	35	2	4
Other social welfare agencies in the field of blindness	17	19	12	42	6	4
Public assistance officials	17	17	10	44	6	6
Prospective employers	2	21	12	45	12	8

TABLE 3
Percentage of 48 Schools Allowing
Access to Student Records

In regard to access to student records (Table 3), it should not be surprising that administrators, along with guidance personnel (counselors, psychologists, social workers, and medical staff), have the greatest access to all student records. There is consensus among the schools that the categories of staff mentioned above should have total access to student records. Sixty percent of the schools permit total access to teachers responsible for a particular student. The remaining schools allow teachers to examine permanent records only. More than 40 percent of the schools permit teachers who are not responsible for the individual student access to all records and over 30 percent of the schools provide the same access for houseparents.

□ It would seem that a good policy on confidentiality must deal with the sensitive issue of access. The NAC analysis contains some profound remarks on access which state, "A good policy for granting access should not merely be negative, i.e., should not aim solely at restricting access. It should protect the student against breach of confidentiality by limiting examination of a student record to that part which is of legitimate concern to the individual requesting access. In other words, administrators of schools should ask themselves, 'is our present policy on access primarily motivated by convenience and simplicity for handling student records or has it been derived through giving equal consideration to (1) making records available for the purpose of

Developing a Policy on Access

developing the proper program for the child and (2) employing necessary safeguards to prevent possible breach of confidentiality?" "

Most schools do not grant unlimited access to professionals and officials outside the school unless a consent is received in writing from parents.

Approximately half of the schools have adopted the policy of no access to any of the records by parents, and approximately two-thirds have a similar policy for students. One of the dichotomies in the area of access was that 42 percent of the schools reported following a dual policy of not permitting parents any access to student records, but at the same time requiring their permission to grant requests for the same information to others!

Needless to say, there is considerable deviation among the schools as to what categories of persons may have access to information on students. As schools develop or revise their policies on confidentiality, a great deal of attention must be given to the category of access.

☐ Now, what are the implications for administrators of the residential schools? I think that every school should be encouraged to adopt a written policy concerning confidentiality, one that would be reviewed annually and revised when necessary. It would seem that the chances of a libel suit are far greater for administrators and other professional staff members when there are no clearly defined policies concerning confidentiality.

Administrators should also assign definite responsibilities to key staff members to make an annual review of student records in order to validate or verify information contained therein, and to eliminate unnecessary information. Administrators should provide in-service training for all persons who contribute to permanent records. Semantics should be emphasized when training is provided. The medical and legal profession certainly have expertise in this area.

Administrators might consider the feasibility of having at least two files on students, one containing less sensitive information, the other containing more sensitive information.

A concern should be raised over whether or not a confidentiality policy should be broad or restrictive. A policy that is too restrictive may become cumbersome and difficult to administer.

In collecting data, we should not jeopardize a child's future by over-emphasizing environmental, parental, or other conditions which might diminish possibilities for future success.

It would seem that after adopting a statement of confidentiality, parents should be informed of its contents.

It was interesting to note that the survey indicated that the IQ scores were considered to be less sensitive in nature. In our school, we have considered indicating ranges rather than actual scores for intelligence test results.

All policies concerning confidentiality should be positive in nature. This is particularly true concerning access.

A final recommendation for administrators would be for them to seek assistance from their State Attorney General's Office or the State Legislature about the possibility of enacting legislation which might keep the most sensitive information about students confidential.

Parents and students

Adoption of a Policy

Annual review of records

Two files

IQ scores

Seeking outside assistance

Confidentiality and the School Counselor

Most schools employ psychologists, school counselors, social caseworkers, or a combination thereof. Depending upon the specific school setting, the functional role of a specific classification may differ. The school psychologist's efforts may be directed exclusively toward psycho-educational diagnostic testing or he may also be called upon to provide counseling and/or psychotherapy. The social caseworker may provide counseling and/or psychotherapy to children as well as to parents. The role of the school counselor may focus completely upon the counseling process or he may provide diagnostic services as well. Since the counselor may provide all diagnostic and helping functions, the author has selected the counselor in his broadest role as the person about whom a discussion of confidentiality will be developed. Therefore, that which relates to the counselor relates both to the psychologist and the social caseworker.

□ The clinical psychologist in a clinic, hospital, or private practice has a direct responsibility to his patient or, in the case of a child, to the patient and his parent. The counselor employed in a school setting is responsible to his client, to the parent, and to the school administration. In fact, in many schools, the counselor's primary responsibility is to the school administration. In some settings the counselor or guidance office may also function as custodian of pupil records. Therefore, the counselor must have a full understanding of the nature of confidentiality and of the type of material that should be included in the cumulative file on each student. The cumulative file may include, in addition to the student's grade record, achievement test scores, reports of diagnostic testing, personal health record, and counseling and behavioral reports. Thus, the cumulative record may contain information that, disseminated properly, may positively influence the future of the pupil, but if used improperly or unwisely, could affect adversely the development or future of a student.

In his role as diagnostician, the counselor acquires data and information that should be recorded in the cumulative file. However, the entering of test scores alone is not sufficient (Davis, 1968). A narrative report for *professional use only* containing a behavioral description and an analysis of performance should be included in the record. This report should be available to all professional staff directly involved with the pupil, but it should not be circulated indiscriminately. Should the parents of the student request the results of diagnostic tests, they have the right to be informed. A competent staff member, preferably the counselor, should interpret the narrative report to the parents in *lay terms*. The same procedure applies when reporting the results of scholastic achievement tests to parents.

The efficacy of the counseling process is dependent upon the establishment and maintenance of an atmosphere of confidentiality between the counselor

CARL J. DAVIS

Mr. Davis is a psychologist and the head of the Department of Psychology and Guidance, Perkins School for the Blind, Watertown, Massachusetts.

Responsibility

Diagnostic test results

Non-disclosure

and the client. Without confidentiality, meaningful communication cannot be achieved. The term confidential refers to the expectation of nondisclosure of communications, but the term privileged denotes the legality of nondisclosure when it is called for in judicial or quasi-judicial proceedings; the privilege of nondisclosure having been established by legislative enactment or judicial ruling (Pardue, Wichard, & Johnson, 1970). As recently as 1970 only five of the 50 states had provided for counselors' immunity from disclosure of confidential communication.

□ To maintain confidential communication, the memoranda or notes of the counselor should not be a part of the cumulative record. Such memoranda or notes should be considered as the mutual property of the counselor and the client. The counselor does have the responsibility of providing periodic summary statements for the cumulative record. However, such statements must be so constructed that the confidential communication is not disclosed. It is impossible for the counselor to convey aspects of confidential communication to other professionally qualified personnel when the need of service to his client requires that he do so: i.e., consultation, referral or intervention. In these situations the counselor must rely upon and be responsible for his own appraisal of the professional ability and integrity of the persons to whom confidential information is transmitted. These are situations in which the counselor acts in "good faith" in the interest of the good and welfare of his client. If such actions are challenged at a later date, the courts generally accept the principle of educational personnel acting "in good faith" (Litwack, Rochester, Oates, & Addison, 1969).

In a given school setting, administrative mandate may place limitations upon the counselor's freedom of confidential communication; for example some behavior such as heterosexual or homosexual activity, alcohol or drug use, theft, must be reported. When such conditions prevail, the counselor has the responsibility of defining the limits of confidential communication to his client at the onset of counseling. When such activities are extra-mural, the counselor must rely upon professional ethics (either A.P.A. or A.P.G.A. codes) and personal integrity to determine whether the effect upon the student body or the school as a whole is such that the behavior should be reported to the school administration. If a report is to be made, the client has the right to be informed of the action and an effort should be made to help him understand the reasons for it and to obtain his support.

□ When administrative limitations are not placed upon the counselor's freedom of communication, he may be faced with behavior that calls for overt intervention, for example, alcohol or drug use, sexual activity, or suicidal gestures or threats. In such situations, the counselor must rely upon his professional knowledge and experience, and possible consultation with other professionals, before making a decision to disclose confidential communication. The decision to disclose confidential information should be made only in terms of serving the best interests of the client, the student body, or the school and it must be made in good faith on the part of the counselor. If a decision is made to disclose confidential communication, the client has the right to know the nature of

Memoranda and Notes

Limitations placed on the counselor

Disclosures

the disclosure and the reasons for it. An effort should also be made to obtain the client's understanding and support of the disclosure.

There will be occasions when the counselor must confer with the client's parent. It may be to make a referral for outside service to ameliorate an unfavorable home situation, or to obtain support for helping activities within the school. No matter what the situation, the counselor must safeguard the confidential communication of his client. Behavioral descriptions in professional, diagnostic, or lay terms may be proffered, but the content of client communication must not be revealed. Coincidentally, the communication from the parent must also be accorded the safeguards of confidentiality.

□ The actual responsibility for the transmission of student records lies with the school administration. The contribution of the counselor to the record has already been described. There are, however, two types of data with which the counselor should be concerned. Schools, particularly schools for the blind, are frequent sources of subjects for educational, psychological, or social research. In general the schools have willingly participated in such projects by making subjects available without giving thought to securing a release from the parents of the children. The schools present the subject under the principles of "mutual benefit" for a specific segment of society and/or "implied consent" by the parents as a condition of enrollment. With the rapidly increasing concern about invasion of privacy, school administrators should review their practices in regard to how they make their pupils available for research.

The other area of concern involves counselors and college admissions. The school transcript and recommendation form may be completed by the counselor or the principal. The form often asks whether or not the reporter believes the student will succeed in that particular college. This information should be treated by the college admissions personnel as confidential communication and this is generally the case. However, the experience of some college admissions counselors has led them to believe that some admissions personnel have at least implied that an unfavorable recommendation has been forwarded (*Massachusetts School Counselor Bulletin*, 1971). Consequently counselors are beginning to feel that the college should not ask for the recommendation, but make their decision on the data presented. At least one state school counselor association has adopted a policy statement urging counselors to leave the recommendation blank (Ware, 1964).

□ The occasions when a counselor is subpoenaed to appear in court, while rare, do occur. The counselor (except those in five specific states) does not have the right of privileged communication. Therefore, he can be required to disclose confidential communication. In order to serve his client to the greatest extent in such an instance, the counselor should request, through his or the school's lawyer, a conference with the judge in chambers for the purpose of identifying in advance, information that is pertinent to the case. It may be possible to avoid the disclosure of information that may be revealing about the client but not relevant to the case.

Even if he is not bound otherwise, the counselor is bound by professional ethics and his own personal integrity to serve the best interests of his client.

The parents of a client

Access to Researchers

Requested recommendations

Court-ordered Disclosures

Yet, even when there are limitations placed upon his freedom of nondisclosure he can construct a counseling environment that can serve his client well.

Davis, C. J. The use and abuse of the I.Q. *Proceedings of the 49th Biennial Conference of the Association for Education of the Visually Handicapped*, 1968, 8-14.

Litwack, L., Rochester, D., Oates, R., & Addison, W. Testimonial privileged communication and the school counselor. *The School Counselor*, 1969, 17, 108-110.

Massachusetts School Counselor Bulletin, October 1971.

Pardue, J., Wichard, W., & Johnson, E. Limiting confidential information in counseling. *Personnel and Guidance Journal*, 1970, 49, 14-20.

Ware, M. L. (Ed.) *Law of guidance and counseling*. Cincinnati: W. H. Anderson, 1964.

Bibliography

Workshop Report

The second part of the NAC Workshop on Confidentiality consisted of four small groups. The groups addressed themselves to an examination of the COMSTAC standards on confidentiality as they related to the Russell Sage Foundation *Guidelines for the Collection, Maintenance, and Dissemination of Pupil Records*.

□ Although each group had been asked to discuss certain NAC standards as they related to the Russell Sage guidelines, the same concerns and issues came up in all of the groups. It was agreed that there is a real need for a good, comprehensive definition of confidentiality, one that could serve for agencies and other institutions as well as schools. There was also general agreement in all of the groups that all schools and agencies should be encouraged to develop their own written policies on confidentiality and that the subject should be an integral part of both university and in-service training.

Agreement on Needs

The discussions about the three categories of information described in the Russell Sage guidelines (see box) as they relate to the COMSTAC standards raised more questions than they answered in all of the groups. The general feeling was that these categories cannot be so fixed. For example, there are situations where even a name and address should be considered very confidential. There was a great deal of interest in the question of consent. What is informed consent? How does one know that the person signing the release is truly informed? What about the language used to get consent? Often with a child—and sometimes with adults—one can get the answer one wants by the way the question asking for consent is phrased.

Consent

Classification and Maintenance of Data

The total set of student personnel data extant in a school at a given time ranges from tentative uncorroborated reports on alleged student behavior to highly stable information. To illustrate: on one end of the continuum a memo may contain a report or allegation that a particular student molested a child, disrupted a class, or wept for several hours yesterday; at the other extreme records will show that a student has completed grade five, that he received a specified score on a nationally standardized test, and that he has a particular attendance record. These differing kinds of data require differing arrangements for security and access.

Category "A" Data

Includes official administrative records that constitute the *minimum* personal data necessary for operation of the educational system. Specifically we take this to mean identifying data (including, names and addresses of parents or guardian), birth date, academic work completed, level of achievement (grades, standardized achievement test scores), and attendance data. These records should be maintained in perpetuity, subject to the conditions set forth [elsewhere in the Guidelines]. . . .

Category "B" Data

Includes verified information of clear importance, but not absolutely necessary to the school, over time, in helping the child or in protecting others. Specifically, scores on standardized intelligence and aptitude tests, interest inventory results, health data, family background information, systematically gathered teacher or counselor ratings and observations, and verified reports of serious or recurrent behavior patterns are included in this category.

Great care must be exercised by the school to ensure the accuracy of Category "B" data. In particular, reported behavior patterns and specific incidents must be unambiguously described and clearly verified before they become part of any continuing record.

School systems should give serious consideration to the elimination of unnecessary Category "B" data at periodic intervals; for example, at points of transition from elementary to junior high school and from junior high to high school. In any case, these records should be destroyed, or else retained only under conditions of anonymity, (for research purposes) when the student leaves school. Exceptions may be made where, under rigorous standards and impartial judgment, good cause for their retention can be shown.

Conditions of access to these data are set forth [elsewhere in the Guidelines]. Parents should be periodically informed of the content of these records and their right of access to these data.

Category "C" Data

Includes potentially useful information but not yet verified or clearly needed beyond the immediate present; for example, legal or clinical findings including certain personality test results, and unevaluated reports of teachers, counselors and others which may be needed in ongoing investigations and disciplinary or counseling actions.

Such data should be reviewed at least once a year and destroyed as soon as their usefulness is ended; or transferred to Category "B." Transfer to Category "B" may be made only if two conditions are met; namely, (1) the continuing usefulness of the information is clearly demonstrated and (2) its validity has been verified, in

which case parents must be notified and the nature of the information explained. Formal procedures for validating information and protecting the interests of students and parents at this stage are set forth [elsewhere in the Guidelines].

If, for any reason, temporary unevaluated data are held for more than a year, the existence of these data must be discussed with the parent and the reason for their maintenance explained fully. Parents then should have an opportunity to challenge the decision to maintain such data through procedures outlined [elsewhere in the Guidelines].

Other Files

Confidential, personal files of professionals in the school (school psychologist, social workers, counselors). We recognize that, in some instances, professionals working in the school may maintain personal and confidential files containing notes, transcripts of interviews, clinical diagnoses, and other memory aids for their own use in counseling pupils. Any and all data that are considered to be the personal property of the professional should be guarded by the rules given above in addition to those dictated by professional ethics, subject to the terms of the employment contract between the school and the professional and any special arrangements made between the professional and individual parents and/or students.

From Guidelines for the Collection, Maintenance, and Dissemination of Pupil Records: Report of a Conference on the Ethical and Legal Aspects of School Record Keeping (New York: Russell Sage Foundation, 1970), pp. 20-22. Reprinted with permission.

□ Another aspect of confidentiality that generated considerable concern was judgment: judgment as it relates to what goes into files, who puts information in, who can release it, and to whom it can be released. How does one judge the use to which information will be put? What is a student-entrusted confidence? When is it essential that it be included in records? How should the school approach the use of confidential records for research purposes?

Judgment

Interpretation of records and confidentiality to parents, students, and others is another area that was discussed in all of the groups. The importance of using appropriate language was stressed again and again along with the suggestion that appropriate language may change depending on the audience.

Interpretation

□ The workshop sessions, along with all of the questions they raised, did come up with a number of recommendations that make a useful checklist for agencies developing written policies on confidentiality:

Recommendations

—All agencies should develop their own written policies on confidentiality. Policies should include what goes into the file as well as what in it can be disclosed. Persons charged with developing policies should be familiar with all pertinent laws and rulings.

—Establish clear procedures for placing material in records and for disclosure within and without the agency or school.

—Students and clients should be routinely acquainted with the material in their files at specific intervals by a qualified interpreter.

—Every institution should have a records control officer.

—Legal counsel should be an integral part of the development of confidentiality policies in every agency.

Legal counsel

—Establish guidelines concerning who can make notations in files, what their qualifications must be, and what kinds of information they can and cannot enter.

—There should be a periodic review at specific intervals of all records. Any information that has become outdated or irrelevant should be deleted.

—Parents should have the opportunity to make notations in permanent files.

—Agency personnel, from the administrator to the janitor, should be trained in the use of confidential information.

Summary of Workshop Reports

This is a four, four, four summary. I have four points on which I think we had some agreement; four areas, it seems to me, where there were major questions which need to be resolved; and finally, four results of whatever we do depending upon how we answer those four prior questions.

So, back to the first point of agreement. I think that there is a very definitive agreement that this is an important issue, but it is an important issue not only for agencies and schools, but for ourselves, in this age of Xeroxing and the computer memory bank.

□ There is an agreement that we need some kind of a statement of policies with regard to confidentiality, and I must confess that if Mr. Cole in his little test had had zero as the first choice for the number of schools that have written policies, I would have selected that. I was surprised that there were 11 that do have written policies.

I am glad to see that there are discussions before we have any court cases, frankly, because in the school district in which I now reside, in this past school year we have had a wholesale cleaning out of records, because of the principle of access to records on the part of parents. This has had three very drastic effects on the school system, as I see it, and having worked in a school this past spring term, I can see some of these results. One is that records are going underground. So that there is a system of record keeping to which parents do have access, but what the parents do not know is that there are records being kept in a locked file somewhere and who knows who is going to have access to those. This has not been worked out.

Second, we are depending more on subjective observations; the third grade teacher shares with the fourth grade teacher what happened last year, so it has become subjective rather than objective.

And, finally, teachers starting the year have nothing to go on. They have no intelligence test information. They have no achievement test information. They have no information regarding what the child has done. All they have is the name, the birthdate, the fact that he has been passed from the second grade to the third grade. I think that this is going to have a terrific impact on our own school system and I am glad to see that we are doing something about it, before some of you may have a similar problem.

The second area in which there is agreement is, I believe, that records are necessary, especially in our own field, as Dr. Goslin mentioned. The two major purposes are for the individual to get to know himself better, and for "society," the community in which we are going to operate.

The third point is that there is general agreement that information should be

GERALDINE T. SCHOLL, Ph.D.

Dr. Scholl is professor of education in the School of Education, Program of Special Education, University of Michigan, Ann Arbor.

The Need for Written Records

Records going underground

Necessity of records

given. We are not in general agreement on to whom and by whom it should be given and what should be given.

And, finally, the fourth point of agreement is that apparently we need some kind of guidance or perhaps legal backing or support. My personal preference would be that this should come from the schools and that the initiative should come from school and agency personnel, before the courts settle the issue for us. I feel that it would be rather unfortunate if we as educators could not resolve some of these issues without outside help, without outside legal action. We should take the leadership in initiating it, rather than having the leadership come from parents and members of the community who will take it over for us. This is a something which we should tell NAC, that they definitely should take leadership in order to help us out of this situation. We need also to be aware of the legal restrictions in our own states. For example, one group questioned whether all the teachers, parents, and students in New York know about the Nyquist ruling? There seems to be general agreement that they probably didn't.

☐ The first is: Who should be the source of information? Who and how well qualified is the individual who is to be the source of information which is going in the record? Is it the pupil? And fortunately, having been in the field for a long time, I can give some nice illustrations. For example, in my own experience in working with children, one child was transferred from one school to another. I happened to have had her in the day school program and then ran into her in the residential school some years later. She told everyone that her parents owned a horse farm. This gave her status. Here was a child with a very low self-concept. She had to have that horse farm to break into another group. It was not true at all. They lived in the slums of a city. Would we record in the school record that that child, who was an adolescent by that time, that her parents owned a horse farm no one knew about?

Secondly, are the parents always qualified to give this information? One parent told me that their child was blind because it was a premature infant who was placed in a bassinet next to a huge baby who weighed ten or 11 pounds at birth. The nurses got the formula mixed up and it was too strong for her baby, and that's why it was blind.

Are teachers always qualified to judge? Have they had sufficient experience? In one of the Workshop discussion groups, a parent made some very good points about the professional qualifications of some of the personnel who have worked with his child—how they prejudged him and how it was at their own initiative and through their own persistence in not accepting the prejudgments of the professionals that their child has reached his current level of adjustment at the age of about 20. But do some of the things that professionals say do more damage than they do good? So these are some of the issues involved in who should be the source of information.

☐ Secondly, what kind of records? I don't think that we have come to grips with the matter of what is essential. There are kinds of information which are more essential in the area of the visually handicapped than with normal children. How valuable and reliable are observational data? Are comments, es-

Initiative in the school

Sources of Information

Information from parents

From teachers

Kinds of Records

pecially behavioral observations, too subjective? As a matter of fact, how reliable and valuable are any of the test data we have? Our test-retest information is extremely limited at the present time, and our research on it is not very conclusive. So, what kinds of records? This presents a whole series of questions.

The third question, or area of questions, is what is confidential or privileged? I think one of the recorders mentioned this earlier. What should go into the permanent record and what into the working record? In following the guidelines that were prepared in the little booklet which we all received, if they are followed and applied, if the three categories of information A, B, and C are followed with regard to the visually handicapped population, does this mean there are health data that are more appropriate for category A than category B, as far as our population is concerned? For example, should the record note that the child had congenital syphilis? Should hereditary causes of blindness be noted? Should epilepsy be noted? What about psychiatric information and summaries? Here I would raise the question, based on my own experience, of whether or not some psychiatrists are qualified to deal with the visually handicapped. One psychiatrist sent a report back that a student I had was definitely psychotic and should be institutionalized. She has subsequently graduated from college, made a very good adjustment within the community, is married and raising a very happy family. Should cases of terminal brain tumor or cancer be revealed? Should this be included in the record? What about social data such as Dr. Chase mentioned? We have a high rate of divorce among our population. We know that. Should we tell the parent who doesn't have custody of the child what the address of the parent who does have custody of the child is? Should we, in nonsupport cases, give the mother, for example, who is attempting to collect support from a father, the father's address which we know because he has come to the child's school? All of these are important bits of information, and raise some very interesting questions.

☐ Who should have access? And to whom should access be given, and on whose permission? If we look at number three of the guidelines mentioned earlier, who is actually providing services and therefore should have access to the information? This is especially true in residential schools. Again drawing on my own experience, sometimes the janitor or the custodian was doing a better job of working with the kids than some of the professionals. Should that janitor or custodian have complete access to information, and if so, what kind of information? To provide services, what do we really need to know, to have access to such information, to such things as student entrusted confidences, as I mentioned earlier. Are professionals always "professionals" in handling such information? Rules and guidelines are useless if we are dealing with those who have no professional judgment. All of this leads us to the conclusion that we need to have total staff involvement in formulating any policies and procedures and that furthermore, policies and procedures are no good unless we have both preservice and in-service training in confidentiality for the entire staff, including janitors and custodians.

This gives you the four areas in which I think there are some questions which need further answering before we can arrive at any conclusions.

Permanent and working records

Social data?

Access to Records

Professional judgment

□ Now to the third set of four, the potential impact or effect that whatever we do may have. Two of these are positive and two of these are negative.

The first one, it seems to me as we look at it, is what goes into records? We may, if we come up with good guidelines, prevent the problem of labeling and prejudgment. A few years ago two of our faculty members in the school of social work did a study of nine Michigan schools; they studied high school records. And they went back to these youngsters in kindergarten. They found that once a negative comment appeared in the school file, it was never followed by a positive comment. So, if the child stole a marshmallow in kindergarten, the first grade teacher had to find something more important for him to steal, maybe a pencil that year. The second grade teacher had to find something else for him to steal, a little more important, maybe a child's lunch. And so on through school, until he was labeled as a thief from kindergarten right on through. And there was never any change. Once a negative comment appeared, no one dared to make a positive comment about the child. Maybe this is what happened at one of the schools in Ann Arbor. It blew the community wide open about five years ago when the results of the study came out. Maybe that was the impetus that we had for that.

The second positive point is that the issue of confidentiality I think will lead to an evaluation of what is essential. From my own experience in both residential and day schools, a lot of information was recorded that was extraneous, and not really relevant to carrying out our educational duties. Maybe we can look at school records and eliminate a lot of information which does not necessarily need to be there. Having spent some time in England, I know how few and far between their records are. They record nothing but the child's birthdate, and who should be notified in case of an accident. Not even the parent's occupation can be included in their records because that might be a basis for prejudging the child's ability level. I would hate for us to go to that extreme, but it might be necessary.

□ The next two we might want to think about are ones which might possibly have some negative effect on our functioning. The first one I touched on in discussing the Ann Arbor Schools. It seems to me that if we do eliminate a lot that we currently have in school records, we are going to increase the problem for teachers trying to know students quickly in order to get the school year under way. This is not necessarily negative, but it could be, depending upon the direction in which we move with regard to records.

And the second one which may have a restricting effect is in the whole area of research. Just a few years ago I completed a project in which we looked at high school test data and at the current vocational adjustment of visually handicapped persons. We would not have been able to do that study if we had not had access to high school records. If everything had been thrown away at high school graduation, that study could not have been done. I think a lot of valuable information comes out of looking at records and looking at potential at an earlier date, and measuring it in accord with current adjustment.

That is the four, four, four summary.

Impact of Decisions

Evaluate what is essential

Danger of No Records

Effect on research

Alternatives to the Blindness System in Australia

ABSTRACT: Alternatives to the present complex of service agencies for blind persons will help to change stereotypes about blind persons and provide better services. The main kind of alternative is the integration of blind persons into the community and the services provided there by schools, hospitals, churches, counseling, treatment, and rehabilitation centers, etc. The role of specialists would then be supplementary to other professionals. Since there has been little progress in this area in Australia, its workers for the blind have an opportunity to assume a leadership role in finding the most suitable and effective alternatives.

The blindness system, a concept which first came to my notice when Robert Scott used it in his book *The Making of Blind Men* (1969), is the cluster of organizations which provide service to blind people as a segregated group in the community. I do not propose to argue the merits of segregation versus integration, but will assume that the reader is prepared to consider alternatives on the basis that integration is preferable. Integrated services can be defined roughly as the provision of necessary services to an individual with impaired vision in order that he may function to the limit of his potential in the same place in the community as he would occupy if his vision were not impaired. Attempts to achieve this are being made in many parts of the world, but little progress, with the exception of one or two instances, is being made at the present time in Australia.

□ It is interesting to note that Scott, who is probably the best known critic of the blindness system because of his published work, is a sociologist and not involved in the blindness system. There are others, however, who have expressed concern about finding suitable alternatives. Harold Roberts, associate director for service with the American Foundation for the Blind, has written: "At this point in time . . . we must begin to reckon seriously with the resultant disadvantages of such wide diversification and fragmentation of our services. Perhaps, in the light of present-day realities and the growing threats to our field, we can no longer afford the luxury of unplanned growth" (1971, p. 111). Lord Head, chairman of the Royal National Institute for the Blind, London, writing in that organization's 1971 Annual Report, observed:

The blind, to an ever increasing extent, are engaging in more advanced forms of education and participating in more complex and technical careers. The help which we must afford to them in this field will steadily become wider, more demanding and more expensive. Last year we spent nearly \$3 million, but with continuing inflation and growing opportunity for supplying more efficient and complex help to the blind, it is more than certain that in a few years' time we shall be spending much more.

This article is based on a paper read at the Mobility Training School, Australian National Council for the Blind, Kew, Victoria, February 23, 1972.

D. L. WESTAWAY

Mr. Westaway is national public relations executive for Royal Guide Dogs for the Blind Associations of Australia, Kew, Victoria.

Worldwide Concern

Frances Dover, associate director of the Jewish Guild for the Blind, New York City, recently said:

Values changing

We are living in a time when all values are being challenged. Social agencies, including those serving the blind, are at a crossroads and must grapple with the critical issues of our day. Priorities and the relevance of services and program must be questioned and evaluated; response must be made to whatever unmet needs are discovered. At the same time, the most troubled people, those with severe multiple handicaps, including blindness, are increasingly seeking help from agencies for the blind. Special skills are required, perhaps as never before, to deal with the multiplicity and complexity of these problems (1971, p. 298).

Certain observers, and admittedly biased ones, suggested to me that the decision of the United States Senate in 1971 not to integrate services for the blind into the government vocational rehabilitation program might have resulted from "lobbying" by agencies. Finally, John Wilson, who represented the Royal Commonwealth Society at the 1964 meeting of the World Council for the Welfare of the Blind in New York said, "It is for others in this Conference to indicate how far we in work for the blind are likely to respond to the astonishing challenges of the changing world. To do so significantly, we must extend the whole scale of achievement" (1965, p. 38).

Responding to the challenge

□ Since Scott, as mentioned, is a sociologist, it is reasonable to assume that he places stress on the importance of the roles played by individuals because of the importance these roles play in the functioning of society. He brings this out through his discussion of stereotypes, the models of behavior that are socially approved for those playing a particular role. For example, an individual may, in the course of a day, play the role of father, son-in-law, husband, employee, car driver, and so on. In each one, his behavior will conform to the expected standards so that he will gain the approval of his fellow citizens; otherwise, he would be considered a deviant. The structure of roles is one of the mechanisms through which a society can function more or less successfully and smoothly, even if there are millions of individual members. The non-existent average of each of these roles ("the man in the street," the "typical" woman driver or suburban housewife, etc.) is the stereotype, the expectation of how the person in that role will behave. For our purposes, it is important to see how Scott applies this idea to the blindness system. He suggests that the blindness system embodies society's expectations regarding the behavior of blind people and that it is, therefore, structured to produce "acceptable" blind people—those fulfilling the stereotyped expectations of society. To change the stereotype, then, we must change the system.

Social Roles

The stereotype

Another factor affecting alternatives to the blindness system is the manner by which a society transfers its culture from generation to generation. Our society, for instance, is based on the nuclear family. Oversimplified, this means that the children learn from the parents the behaviors required for them to be accepted by society in the various roles they will play. Until comparatively recently, changes have occurred slowly and most parents were sufficiently familiar with them to be helpful in advising their children how to adjust to

Socialization

them. Many believe that this rate of change is speeding up and that we are reaching a point where the young are faced with problems with which their parents are completely unfamiliar. Accordingly, our ways of preparing children for the future must be modified; new methods, not based only on the experience of preceding generations, must be found.

Riesman, in his book *The Lonely Crowd* (1950), and Toffler, in *Future Shock* (1970), have both discussed this phenomenon in detail. A similar problem is found in work with blind people. When the average person is confronted by blindness, in himself, in a family member, or even in a client, it is usually for the first time. There is little precedence for him to use in deciding the pattern of behavior he should adopt. This, I suggest, is one of the reasons why so many people are willing to refer blind people to a separate institution where it is assumed they will be handled by experts.

□ Let us now apply some of these ideas to the question of alternatives to the blindness system. If we accept the contention of sociologists that a person is socialized most successfully within the community—as a member of a nuclear family, in conjunction with other influences, such as clubs, churches, schools, mass media, etc.—then we must ask ourselves whether or not this applies equally so to people with impaired vision. If we agree that it does, then residential schools for blind children would not be acceptable to us. The alternative is integrating children with impaired vision into so-called “normal” schools, supplemented by a resource teacher.

Another factor which we may well consider here is the method by which we normally acquire the necessary knowledge of how to behave in order to be acceptable in our chosen group. Much of this is by conversation, such as parents correcting children on table manners, speech, morals, attitudes, etc. Some is through conversation with others outside the family and through radio, but the bulk of intake is through vision, through mimicking what others do. We copy styles of dress, hair-styles, manners, mannerisms, etc., from advertisements, shop displays, and other people and adapt those which appeal to us and which gain acceptance for us at our chosen place in society. Now in the case of blind people, special systems of communication must be devised in order to provide this essential part of their socialization. It is obvious that this information must be provided by sighted people and that this will influence our considerations about the ratio of blind and sighted in situations of learning.

□ It has been said the hardest way to care for 50 elderly blind people is to put them all together. Although other places, such as Philadelphia, have dismantled such segregated establishments, we still have them going full strength here in Australia. These considerations indicate that alternatives to the blindness system will require support from consumers and from professionals in hospitals, schools, rehabilitation centers, homes, and businesses. An alternative to the blindness system will develop if these professionals begin delivering service to the blind client in their own agency rather than referring him to an agency for the blind. When this happens, it will become apparent that we need a number of resource persons with a highly developed understanding of the problems imposed by blindness who can assist the other professionals. There is

Ambiguous response

Normalization

Environmental learning

Pursuing Alternatives

something of a parallel here between a physiotherapist and a football coach. The coach remains responsible for the player and employs the services of the physiotherapist as a specialist to achieve improved performance. It is along these lines that a resource person will participate in the teams that are likely to develop in the future.

The emphasis will be on providing service to the individual according to his needs as a person within the family situation and as part of the community. Only for direct treatment to damaged eyes will the service need to confine itself to vision. The real service will be provided to the person in relation to his mental attitudes and efficiency in using his residual abilities. In a sentence, this means that professionals in all sorts of agencies will be sufficiently well informed to deliver services to blind people when they present themselves and will draw on resource personnel for special advice relating to blindness in order to provide the best service possible. Referrals will take place, of course, from agency to agency as they do in any normal community situation and there will be some blind people who will need such specialized attention as to require the services of a special team.

Integrated services

Mobility, for instance, is one thing which a person who is blind must do in a manner unlike he would do it with sight. Orientation and mobility specialists will, therefore, probably be the ones who will remain longest as specializing in service with blind people, but they may well operate from a local or regional office or be an itinerant staff member for a series of schools attended by blind children. Highly sophisticated programs are also likely to be devised for the top level operator whether he be a recently blinded bank manager type or the congenitally blind person who has achieved a high level of skill in academic and job training but requires much improved socialization service. This could perhaps be carried out in a non-institutional setting.

Mobility training

□ Consider, for instance, an existing agency purchasing a motel and running it as a business with a board of management serving in an honorary capacity and with paid management staff. In the main, it would be occupied by tourists and the profits as a business would come to the agency. From time to time blind clients would be moved into the motel and taught to function efficiently as blind people in that setting. The woman, for instance, being instructed by an occupational therapist visiting her in her room, would learn how to find a number and dial her hairdresser to make an appointment. Getting to the appointment would become a lesson supervised by a mobility specialist. Appropriate staff, with perhaps a social worker or rehabilitation consultant if required, would be invited for lunch or some other non-clinical situation. The client would then be appraised, evaluated, and instructed in social graces, techniques of eating, etc. Finally, they could book their own passage home by plane or other transport and move out as they would if they were there as a regular tourist.

An Agency Motel

Consider also the currently established rehabilitation teams such as the one at the Alfred Hospital. They cope with all types of injured people ultimately returning them to the community as functioning members or to the appropriate

slot if they require total care. The head of the teams has said they would not reject a blind person from that system if one should come their way.

Improved medical services have significantly lowered the infant mortality rate and increased the average life span in most industrial societies. This has created many social problems which those in the human services professions are charged with ameliorating. We can do this more effectively because our affluence has increased to the point that it enables us, through the welfare service, to have a greater proportion of our work force employed in caring for that section of our community which requires specialized treatment. Applying this to blind people in Australia, we have now reached the point where our affluence will enable our society to progress another stage beyond the service which has been provided for blind people during the past 50 years.

In other words, we can talk about improved services because we can afford them; also, the highly educated people necessary are becoming available and are willing to enter service in this, so far, undeveloped field. So many influences are now beginning to have effect that it is not at all clear how things will go. Although it is certain that changes of considerable magnitude will occur within the next few years, whether the result will be based on health and rehabilitation, led mainly by doctors, or whether it will swing toward education and be university- or school-based is not clear.

□ Mobility specialists, social workers and occupational therapists, at this stage, could easily seize the initiative, develop the appropriate skills and know how, and become leaders in the changing scene. Administrators, boards of management, and funding sources are other influences, but the professionals have a great deal in their favor and are most likely to be the sources of leadership for change.

The most radical alternative to the blindness system is to propose that it be completely dismantled. The compromise would be to modify it with increased interaction with agencies outside of it. And, of course, it could stay as it is with attempts being made to build better institutes. So many people and influences are involved that it is unlikely we will reach clear-cut conclusions regarding alternatives to the blindness system. In Australia, the situation is wide open and I would like to think we have at least stimulated interest in the topic.

□ Whilst encouraging people to pursue with vigor solutions to the problem of finding alternatives to the blindness system, let me also sound a word of caution in relation to oversimplifying it. Many of the good services available for blind people today are the result of specialized agencies being formed to provide them, and there is a strong feeling with many people that if the services are handed back to the community, it is possible that these achievements could be diluted. I would also suggest that you think in terms of a service based more on education and rehabilitation than on the traditional medical-based, physician-led concept. At the same time, as change is being advocated and indicated, we will almost certainly, for a long time to come, have some agencies in existence providing services to blind people exclusively.

A mandate for change

Increasing resources

Seizing the Initiative

Three alternative courses

The Specialized Agency

- Dover, F. T. The case study approach in an agency for the blind. *New Outlook for the Blind*, 1971, **65**, 298-306.
- Head. *87th report of the Executive Council, Royal National Institute for the Blind*, 1971.
- Riesman, D., et al. *The lonely crowd: A study of the changing American character*. New Haven, Conn.: Yale University Press, 1950.
- Roberts, H. G. The role of a national voluntary agency in meeting the challenge of the 1970's. *New Outlook for the Blind*, 1971, **65**, 108-111.
- Scott, R. A. *The making of blind men: A study of adult socialization*. New York: Russell Sage Foundation, 1969.
- Toffler, A. *Future shock*. New York: Random House, 1970.
- Wilson, J. F. The extent, causes, and distribution of blindness: A statistical survey. *Proceedings of the World Assembly of the World Council for the Welfare of the Blind*. New York City, 1964, 34-39.

State Administrators Call for Accreditation

On September 26, 1972, the Council of State Administrators of Vocational Rehabilitation adopted the following plan as part of agency policy and standard operating procedures:

"I. By June 30, 1974, all rehabilitation facilities [as defined in Federal Vocational Rehabilitation Regulations] providing services to clients of State Vocational Rehabilitation Agencies will have:

"A. 1. Applied for accreditation to (a) Commission on Accreditation of Rehabilitation Facilities (CARF) or (b) National Accreditation Council (NAC); 2. Received an on-site survey from either CARF or NAC; 3. Outlined written plans (by June 30, 1974) to meet accreditation no later than June 30, 1976; or

"B. 1. Rehabilitation facilities established July 1, 1973, or thereafter will meet the following conditions: (a) For the first three years of operation from the date of admission of the first client the facility will meet the standards established or adopted by the State DVR agencies; (b) During the three-year period will apply for accreditation and receive an on-site survey from either CARF or NAC; (c) Will be accredited by CARF or NAC by the end of the fourth year following the establishment date."

A Macro-Solution in Special Education

ABSTRACT: A macro-solution is a comprehensive system of public and private agencies in which the services needed by a specific group of children are coordinated in such a way that all such children receive services in the most efficient and least redundant way. Proper coordination of existing agencies and centralized planning and evaluation are the keys. Using the examples of the national system of centers for deaf blind children in the United States and the programs for the education of the deaf in Denmark, a macro-solution for the provision of services to all exceptional children in the United States is proposed. Specific suggestions include a state coordinator for all services, a central registry, coordination of funding, and centralized certification of personnel. A case history illustrating the inefficiency of the present system is provided.

A macro-solution is an attempt to solve a specific problem in its entirety. For instance, macro-solutions in special education would not only solve a small problem in a small town, but would attempt to solve all problems in training and educating exceptional children throughout the nation. Two examples of successful macro-solutions are the national system of centers for deaf blind children (U.S. Department of Health, Education, and Welfare, 1968) and programs for the education of the deaf in Denmark (Guldager, 1968).

□ In the beginning of 1968, with Public Law 90-247, Title VI of the Elementary and Secondary Education Act was amended to include provisions in Part C for the development of comprehensive regional centers for deaf blind children. Soon after this law was passed, eight centers were established throughout the nation with coordination accomplished in the Bureau of Education for the Handicapped, in Washington, D.C. This is the beginning of a macro-solution (Guldager, 1969).

In this system, an administrator has been appointed not for a city, a county, or a state, but rather for services to a specific group of handicapped children. Each center consists of several agencies working together through a coordinating agency. The latter hires the regional coordinator. This is the basis for equal services to all deaf blind children in the country; no service given in any part of the United States should be unknown to the Bureau of Education for the Handicapped in Washington. In this way overlapping services should be avoided. Services can be given by state, private, or federal agencies throughout the nation. In an unusual case, the coordinator in one region may contact the coordinator in another region in order to establish services for a sub-group of deaf blind children.

The basic idea in this macro-solution is that all deaf blind children are to utilize their full potential, all have equal rights to equal education, and no child will get a better education than another simply because he happens to live in

LARS GULDAGER

Mr. Guldager is executive director of the Community Group, Newton Centre, Massachusetts, and former coordinator of the New England Center for the Education of Deaf-Blind Children.

Regional Centers for Deaf Blind Children

Equal services

Coordination of services

an area where professional people cooperate. The recipe for success in this program has been established, and if all children are evaluated as early as possible in order to determine their needs, both medical and educational, the centers for deaf blind children throughout the nation can offer comprehensive services to every deaf blind child. United efforts, with everyone pulling in the same direction and without overlapping, will solve the problem quickly. Much credit should be given to pioneers in the education of the deaf blind and to the Office of Education, Bureau of Education for the Handicapped, for their farsightedness in trying to solve problems for this specific group of handicapped children.

□ More than ten years ago, a macro-solution in providing "cradle-to-grave" services to deaf persons was established in Denmark. By dividing the country up into three regions, each with a centralized hearing center, it has been possible to coordinate all services—from diagnosis and evaluation to followup services related to education and vocational placement. Of critical importance to the success of this system of services is the role played by the "parent educator," a counselor who guides the child and his parents from specialist to specialist and from agency to agency. The educator also provides the parents with background information and interpretation of diagnoses and recommendations so that they may make the necessary decisions. When the individual reaches high school age, a social worker or adult educator takes over the role of coordinator and guide and helps with whatever further services may be required.

It is part of the American philosophy that one should "do it himself." One's salary should not be turned over to the government to buy services; too much state or federal interference in daily activities is undesirable. It is also true that America is one of the richest nations in the world. These two factors put together make it very easy for a local association to establish a program that they feel would be desirable in a specific location for a specific need. Programs for handicapped children that are started this way, however, will not be a part of a macro-solution on a state or federal level. Coordination of services is very difficult and, in some cases, overlapping is present; therefore, a great deal of professional effort and money can be wasted.

□ In some states, services to handicapped children are carried out by numerous agencies and individuals. It is not uncommon to see several state agencies—public health, mental health, and public welfare—all involved in serving retarded children. At the same time, numerous private agencies, private residential facilities, parent associations, etc., are serving in the same region. In many states, services under a specific state department have been regionalized and, in many cases, it is not uncommon to see two different state agencies using different regions for their services. In a case where many agencies are giving the same services to a specific group of handicapped children, there exists a great need for top coordination of these agencies so that overlapping, waste of services, and waste of money can be avoided. It is not unusual to have a multiply handicapped six-year-old who has been served by more than five agencies with no coordination of their efforts.

The federal government is getting more and more involved in solving the problems of handicapped children. The founding of the Bureau of Special Edu-

Denmark's Services for Deaf Persons

American attitude of independence

Fragmented Services

Federal involvement

cation in the U.S. Office of Education was certainly a step forward in solving the problems of the handicapped. However, coordination of all federal funding to a state has not been requested. In some states, it is not unusual to see Title III money being given out without pre-planning by the department of special education. Much of the \$25,000 in planning grants awarded the first year turned out to involve planning for a single group of handicapped children or, in some cases, for a program with children already known to the applicant. This is not overall planning for preschool handicapped children. In some cases, two different Titles were used to serve the same group of children without the grantees knowing about each other.

☐ I would like to see all federal services for handicapped children coordinated under one person in each state or in a region. This would help us to come closer to a macro-solution for handicapped children in that area. One of the reasons for coordinating all these services under one agency or person is that the multiply handicapped child is being focused upon more and more frequently. This type of child has been a "step-child" for many years; efforts for the deaf, the blind, and the retarded have been carried out for a long time, but the retarded deaf or the retarded blind have never had tailored programs for education and training.

Coordination towards a macro-solution should have the following ingredients: 1) one office in a state taking care of all special education; 2) a central registry for all handicapped children from birth; 3) physicians and other professionals who are required by law to report handicapped children to the registry; 4) state and federal funding should be coordinated through the central office; 5) placement and differential diagnosis should be coordinated through the central office; and 6) certification of personnel should be accomplished through the central office. Also, the rapidly developing data-processing system found in business, and lately also in the field of education, should be utilized to its fullest extent.

One of the advantages of working with children is that it is known quite early what kind of services are needed. It is possible, therefore, to plan for school-age placement, for nursery school placement, etc., if the central office has information on handicapped and high-risk babies as soon as they are born. This is strictly an administrative problem. Many states have tried to establish such a registry for handicapped children. It has been found, however, that it was a very expensive project and usually not very profitable, since only a fraction of the handicapped children were reported. It must be made clear that it is in the interest of all professionals that all handicapped children must be reported to the central registry, since this is the only foundation upon which planning for the future can be accomplished. It will probably be necessary to require reporting of handicapped children by statute as early as possible. In most cases, it would be necessary to educate and inform the physicians and other professionals about this task. The idea that a child will "outgrow" his handicaps should be thrown out, and more understanding between all professionals, both directly and indirectly involved in the field of education, should be fostered by the central office. When it comes to the topic of multiply handicapped children,

Approaching a Macro-Solution

Ingredients

Early diagnosis and evaluation

Enforced registration

it is necessary that all fields of exceptionality work together. It is often amazing to see how little educators in one field of exceptionality know about another field. One of the basic headaches in administration of special classes and schools has been funding. It is well known that educating and training handicapped children is very expensive. In several fields, it costs more than \$10,000 annually to educate a child. If all funding for exceptional children were done by the suggested central agency, both state and federal money would be better utilized to the benefit of both public and private facilities serving handicapped children.

☐ Should a label be put on a handicapped child, and will that label be with him for the rest of his life? Is it necessary to say that a child is deaf? Emotionally disturbed? Blind? Deaf blind? Brain damaged? And what can we do to change inappropriate labels? If placement and differential diagnosis were coordinated by the central office, mistakes would be minimized. There would be communication between the places where differential diagnosis was to be done.

It is often said that it is necessary to label a child with a specific disability in order for authorities to help this child. State, federal, and even private authorities require that a child have a specific disability for them to provide funds designated for that group of handicapped children. If services to handicapped children were coordinated from one central office, it would be possible to overcome this barrier. It is to the disadvantage of a child if he must be taken from one diagnostic clinic to another in order to find out what can be done with him. It is also unfortunate if a child is diagnosed once, placed in a set-up to which he may not be suited and forced to stay there for the rest of his childhood, or even for his life; and all because of a lack of coordination between agencies. By having services coordinated by a central office, a child would get a chance to be reevaluated and placed again if necessary. Here again, data processing and the modern computer would be able to review the data on some of the children in the registry in order to find out if there are any doubts in placement and then take the case up again. Such a system would also prevent misfiling of a child's folder and letting him remain in a set-up where he does not belong.

☐ The most important factor in solving problems in special education is the human factor. The kind of person who is responsible for the first parent counseling is critical, as it is with the nursery school teacher who first has the child. It is very important, too, that the kindergarten teacher is prepared before going into school; he should know his field, its limitations, and what it can do for the child.

It is important that the child be evaluated by the right psychologists, that the physician who first saw the child be able to recognize the handicap, report it, and have something done. It is also important that the vocational counselor be able to work with teachers and other professionals in order to find the specific job that best suits this specific youngster. It is certainly very important that the parents receive counseling whenever it is necessary throughout the child's life. Important, too, is the child's receiving individual counseling for social problems, such as adjustment to his handicap. All these services are now given by a huge group of people with many different kinds of education. And although it is true

Opportunity for Constant Re-evaluation

Elimination of harmful labels

The Human Factor

Individual attention

Centralized professional certification

that all professionals working with handicapped children have to be certified, they are usually certified by different agencies, by state departments, or by an association in that specific discipline. It would be beneficial for everyone concerned if all certification for work with all handicapped groups was done by the central office. In that way it would be possible for the state to give, or at least to define, a minimum service for the child, both the hardware and software.

□ Should such a central office be placed under the department of mental health, public health, public welfare, or education? Or should it be autonomous? Wherever it is placed, its primary concern should be education—education from cradle to grave. The public school system has for many years ignored the first years of life and has only been concerned with the child when he is ready to go to school at the age of six. It is important that the department of education and the public school system realize that what has been going on from birth has been of vital importance in the child's life. Also, the parents should have been receiving regular counseling (from even before the child's birth in the case of anticipated handicaps).

With the central office for special education in each state serving handicapped children from cradle to grave, many avenues are opened up for macro-solutions and for coordination on a nation-wide basis. It should be clear that close cooperation among the top coordinators from each of the 50 states would be possible. Research and curriculum development in each handicapped group could be coordinated. Through this macro-solution, it would be possible to utilize the child's full potential, as well as the professional's, at a lower cost than under the present system.

In order to emphasize the importance of a coordinating body, the following case from the files of the New England Center for Deaf Blind Children will be summarized. Facts have been changed somewhat to preserve confidentiality and to underline the points:

□ The parents discovered that their three-month-old baby did not respond the same way as the older sister had at the same age. Nothing was recorded in the birth description that would indicate that the child was not normal. The mother had mentioned to her obstetrician that she had had a rash in the first month of her pregnancy, but the doctor had told her that it did not mean anything. The baby was also about two months premature and had been placed in an incubator, but the parents were assured that the baby was okay when the happy family left the hospital two weeks later than they normally would have. The family situation started out to be a very happy one. When the baby was three months old, the mother noted that she did not react to loud sounds as her older child had. She made loud noises and did not get any reaction. The father got involved in this also and was somewhat concerned. The mother told the pediatrician at the next visit that she thought the baby had a problem. The pediatrician examined the child's hearing and assured the mother that everything would be okay, and that some children reacted this way. He mentioned that the child was unable to focus on objects but that that was normal for this age. The mother was a little puzzled and talked to her husband, who assured her that the pediatrician was right and there was nothing to worry about.

Establishing a Central Office

Nationwide coordination

A Case Study

Early signs

At the next visit, six months later, the same thing happened at the doctor's office. The mother was now very worried and kept asking for support from her husband. He relied on the pediatrician's assurance of no problem. The unavoidable home crisis began. The parents grew further and further apart in the months that followed and at the next visit, when the baby was fifteen months old, the home had started to fall apart. The mother asked the pediatrician to refer the child for a full evaluation at a hospital clinic; she was told that there was a three-month waiting list, but she was given a date and brought her now 18-month-old baby to the clinic. At that time the husband and wife had separated and the two children were living with their mother. The financial burden was overwhelming and the mother had to go on welfare. At the interview the mother reported that something was wrong with her younger child.

□ At the hospital clinic it was discovered that the child was brain damaged, had poor vision, poor hearing, and was also on a very low mental level. The social service department started working with the mother after the pediatrician had only spent a few minutes explaining that the child was brain damaged. The mother did not understand this and was very confused until the social worker explained some of the problems and promised to get in touch with agencies that work with handicapped children.

When the child reached two years of age, the following agencies had become involved: social service at the hospital, Area Center for Deaf Blind Children, commission for the blind, public health, public welfare, department of mental health, evaluation clinic at the state school, program for deaf blind children, and private residential nursery for retarded. In less than three weeks the mother had received visits from all these agencies and naturally seemed a little bewildered. The Area Center for Deaf Blind Children tried to coordinate the services and was somewhat successful. The Center had no authority to demand other agencies to cooperate and all felt they had the same responsibility. When the child was four years of age, the department of special education was called in since the mother was told that school tuition for the following year would have to come from that department. From that time on the Area Center for Deaf Blind Children was the only agency involved. By 16 years of age, the National Center for Deaf Blind Youth and Adults and the state rehabilitation commission will also be involved.

□ The following "highlights" should be noted: 1) The obstetrician did not diagnose rubella; 2) No risk-situation was set up although the baby was premature and the mother had had a rash that could have been rubella; 3) Nobody except the family pediatrician had been involved up to age two in professional care of the baby; 4) The pediatrician at three months did not pay attention to possible eye and hearing problem; 5) Pediatrician at three months kept carrying the responsibility alone and did not report to state agencies or recommend the child for clinical evaluation; 6) Pediatrician at nine months still did not ask for help or evaluation; 7) The child was referred to a hospital clinic at 15 months; a state agency was still not brought into the picture; 8) At 18 months welfare was involved; 9) At age two years, too many agencies were involved; 10) At age four years, the Department of Special Education was involved;

Family crisis

Hospital Clinic

Agencies involved

"Highlights" of the Case

11) At age five, both state and private agencies had been involved; 12) At age 16, six state agencies and five private agencies had been involved.

It is very clear that coordination of all these agencies is a necessity. At the least, some should be taken out of the picture and services to children, all children, placed in one department. Would that be under a Secretary of Human Services? How would the Department of Education be related to that new post? Should not the Department of Education be part of Human Services? Looking through the jungle, you cannot help but say, "Poor child and parents!"

□ It has been the purpose of this paper to explore the idea of having a central office in each state to coordinate all services to exceptional children from "cradle to grave." It is realized that in some states the department of special education does carry out the responsibilities that have been mentioned in this paper. We have also tried to focus on the child from birth to school age. These important first years of life have so much to do with how the personality will develop and how the person will fit into society later on. In times when funds are lacking in almost all areas of social welfare, an attempt has been made to mention how coordination of financing can be done by one office for both federal and state funds. This would also help good, private facilities to get more help in serving handicapped children. Inter-state relationships would push more research and raise the level of personnel indirectly connected with handicapped children, as well as those directly concerned with these children.

Summary

Guldager, L. Denmark's cottage system offers home environment to deaf children. *The Volta Review*, 1969, **71**, 405-407.

Guldager, L. Progress in education for deaf blind children. *Education of the Visually Handicapped*, 1971, **3**, 18-21.

U.S. Department of Health, Education, and Welfare. *Policies and procedures, Public Law 90-247*. Washington, D.C.: U.S. Government Printing Office, 1968.

Bibliography

Certification of Vocational Rehabilitation Counselors

At the annual conference of the National Rehabilitation Association last September, the National Rehabilitation Counselors Association proposed the following system for certifying vocational rehabilitation counselors.

1. Officially appoint or create a Commission on Rehabilitation Counselor Certification. This Commission should be composed of representatives of rehabilitation counselors, government, counselor training programs and associated agencies, and the general public.

2. Implementation of the certification process would include: a) appointment of a certification commission by January 1, 1973; b) development by the commission of a list of areas to be evaluated for presentation to counselors in the field by April-May, 1973; c) during April and May, holding of a series of regional meetings; d) by August 1973, negotiation of a contract with an appropriate testing service to develop a method(s) for assessing the components of competency recommended by the commission after the regional meetings (the target date for completion of the development of the examination should be July 1, 1974); e) between January 1 and July 1, 1974, the commission should develop "grandfather" certification procedures; f) initiate "grandfather" certification process on July 1, 1974 (members being certified without their being required to participate in the examination process); g) terminate the "grandfather" certification process on July 1, 1975; h) initiate the full program of certification by examination on July 1, 1975.

3. It is anticipated that the certification program will be totally self-supporting when formally initiated in 1975. Fees charged applicants for initial certification (approx. \$50) and an annual certification maintenance charge (approx. \$5) should provide all necessary operating revenues.

Four-Year-Old RLF Victim Awarded \$200,000 in Connecticut Negligence Case

Lisa Elaine Jeffers was born prematurely in Stratford, Connecticut, on April 23, 1968. She spent the first days of her life in an incubator and, as the result of her receiving too much oxygen, became totally blind in her right eye, with only "tunnel" vision in her left eye. Such an overdose of oxygen produces the vision impairing condition known as retrolental fibroplasia (RLF). Last year, Lisa, through her father, Charles Jeffers, sued two Bridgeport pediatricians for damages resulting from their alleged negligence while she was under their care. After a trial lasting from October 10 to December 5, and after deliberating for five days, a Superior Court jury of eight men and four women returned its verdict, awarding Lisa \$200,000 in damages, and her father \$28,000 for expenses incurred because of her condition. The two physicians, Dr. Aaron Eimas and Dr. Norman Weinstein, have appealed the decision. Midway in the trial, the complaint against St. Vincent's Hospital, originally a co-defendant in the suit, was withdrawn after the hospital paid the plaintiffs \$40,000 on a covenant not to sue. A. Reynolds Gordon and Arthur A. Hiller of Bridgeport were counsel for Lisa and her father.

The Blind Teacher in the Educational Job Market

ABSTRACT: After a brief assessment of the educational job market, the role of agencies for the blind in publicizing the abilities of blind workers to combat stereotypes and negative attitudes is discussed. Specific suggestions for the blind applicant for a teaching position are offered, including obtaining a personal interview, filing application forms and other pertinent data, and preparing for and conducting the interview.

There is no question that the job market at all levels of education has changed significantly since the middle 1960's. The teacher shortage that was the by-word as late as 1967 has been replaced by the ever-growing teacher surplus of 1972. This past year, literally thousands of newly graduated teachers and ex-teachers trying to get back into the profession have been unable to find employment. Whenever the job market in any employment area becomes tight, the first group of people to be most affected are those who are exceptional in some way. Thus it is that blind and partially sighted persons, who historically have had difficulties in locating employment in America's classrooms, are finding their opportunities for employment in education even more limited than they have been in the past.

□ It is our intent to offer some suggestions in light of the current situation. These suggestions grow out of the experience we have gained from working in the educational placement-employment business. First of all, there is a tremendous need for increased publicity as to the capabilities and potential of blind employees. Nothing seems to open up doors for prospective employees more than being part of an active and visible minority that is demanding an equal opportunity from prospective employers. We feel that it is imperative that all of the various organizations serving blind persons unite to the point of working out a joint national publicity effort. This sort of pressure, applied through the media in this country, could have a significant influence on employment opportunities. For example, one of the most viable alternatives for education majors who have been unable to find teaching positions are employment opportunities in local, state, and federal government organizations. These organizations should be the leaders in "equal opportunity employment," yet we have had several recent instances come through our office where blind applicants have been refused government positions on the basis of their blindness alone. As the final irony, they received the word of their rejection on stationery bearing the "equal opportunity employer" statement. This sort of practice by employers, and especially by governmental agencies, is intolerable and needs to be exposed as typical of the underpublicized employment problems of the blind. No activity by the various organizations serving the blind and the partially sighted deserves greater attention than the efforts toward dispensing publicity and information about the value, reliability, and effectiveness of the blind worker. There

THOMAS L. MCGREAL
DENNIS WISEMAN

Mr. McGreal is director of the Office for Professional Services in Education, University of Illinois at Urbana-Champaign; Mr. Wiseman is a placement counselor in the same office.

Pressure on Employers

Discriminatory practices

is no better nor faster way for blind persons to overcome the second-class citizenship status to which they have been relegated during the past, than to begin to obtain useful and meaningful employment opportunities.

□ We would also like to offer some suggestions that deal more directly with the blind applicant himself and his efforts to obtain a responsible and meaningful job. Our remarks are directed primarily toward dealings with educational organizations, but we feel that they have considerable implications for job applicants in a variety of areas.

Regardless of the fact that totally and partially blind men and women do teach in a number of public schools throughout the United States, the number is piteously small in comparison with the growing number of available, competent, and qualified blind teachers. The public schools do not differ greatly from most organizations in that the blind applicant is penalized by the operation of a stereotypical attitude among principals, department heads, superintendents, and boards of education which tends to perpetuate the myth that blind teachers cannot give complete and full performance in the classroom. Many of these cases reflect a growing body of evidence that would indicate that an education, even at its highest level, does not eradicate biases and behaviors which devalue the person who has a physical handicap. This seems to be standard behavior for many people in a culture which values so highly the "whole" and "complete" body. Also, the great value placed on productive capacity in citizenship today is surely part of the basis for negative stereotyping when there is the least suspicion that a person cannot present intact sense modalities and a complete body for the performance of such citizenship. With this sort of behavior being found in education just as frequently as it is in other kinds of organizations, the question becomes "What can be done to counteract this sort of feeling on the part of educational employers?" It is to this question that we will now direct ourselves.

□ In education, as in most fields, no one is going to get a position unless they somehow get the opportunity to have a personal interview with a hiring official. When the job market is tight, most decisions about who will be called in for personal interviews are based on initial screening efforts involving written *vita* sheets, resumés, and placement credentials. Thus, the first problem for the blind applicant is to put together a set of papers that will reflect his training and experience as well as providing information overcoming the likely reaction of employers toward a blind applicant. It is at this point that many people face a considerable dilemma. Since handicapped people are so often turned down without ever having the opportunity to make their case in an interview setting, more and more handicapped people are beginning to omit the existence and extent of their handicap in their applications so that they possibly can get an opportunity to appear for an interview and thus be able to sell their qualifications to potential employers. Although the question of including pertinent information in application processes can only be dealt with and answered by the person involved, we can report that in cases that we have known where a handicapped person has withheld the fact of his handicap intentionally, the relationship with the employer was so strained initially that the candidate was

The Applicant

Stereotypes

Personal Interview

Application form

unable to establish any kind of consociation that gave him an opportunity to explain how and why his handicap did not get in the way of his performance. We would suggest that the blind applicant for an educational position include a statement on his visual limitations and accompany that statement with additional comments by himself and by others describing how he could handle certain anticipated situations such as classroom discipline and the use of visual aids. We have seen several instances where this method has so impressed administrators that they were forced to set aside some of their misconceptions, did call blind candidates in for interviews, and subsequently hired them.

□ The next step in the employment process is to prepare oneself for the actual interview situation. As we have said, in education, as in most fields, more jobs are won and lost at the interview stage than at any other point. Thus, it is crucial that the blind candidate plan and prepare for the interview considerably in advance of its occurrence. In all interview situations, including those involving sighted candidates, there is a tendency toward nervousness and awkwardness on the part of the interviewee. In the case of the blind applicant, this normal reaction is often construed as the inability of the blind to relate to sighted people, as well as their inadequacy in adjusting to new or unknown situations. It may cause the administrator to feel embarrassed, sorry for the applicant, or rejecting, depending upon his attitude and experiences, or lack of them, in relationships with blind people. None of these reactions are generally favorable. Consequently, the importance of the blind candidate acting calmly and comfortably during the interview situation is extremely important.

Since the first meeting of the applicant and the employer generally comes as the initial interview, there is a definite advantage in demonstrating one's dependence and mobility when going to the interview. It would be appropriate to have a sighted friend or wife accompany the applicant to the interview location with the idea of giving him the general layout and design of the interview location. This sort of orientation might be done some time before the interview so that during the actual interview the point can be made as to how quickly a blind person can become familiar, and thus independent, in a new environment.

□ As has already been mentioned, many of the rejecting attitudes which face the blind applicant involve misconceptions held by administrators about what a blind teacher would be capable of performing. As might be expected, many of these misconceptions come out in the interview. The blind applicant should anticipate this and, during the opening part of the interview, take the lead in bringing up the typical objections to blind teachers and consciously direct discussion toward how he would and could handle such situations and conditions adequately. The aggressive and confident behavior that this sort of an approach promotes allows the candidate to take the lead in manipulating the "interview environment" in his favor. It acts to nullify many of the fears the administrator will have and it cuts off the development of any arguments that might come up as a result of the interviewer being given the opportunity to voice the objections in his own terms.

All of the ideas we have expressed about the "gamesmanship" of interview-

Preparing for the Interview

Independence and mobility

Leading the Interview

Preparation and practice

ing have one thing in common and that is that they all require substantial thought, preparation, and practice prior to the interview. They require thought in the sense of the development of a strategy about how the applicant can best create the kind of impression on the interviewer that will be most reflective of his competence, commitment, and reliability. It also requires thought in the sense of a self-analysis as to how he plans to handle all the situations and conditions that are typically used to describe the limitations of blind teachers. Certainly if he is not confident in his own mind as to his ability to perform in the classroom, it is going to be extremely difficult to convince an employer of his capability.

The pre-interview preparation and practice are also necessary to eliminate as much as possible the nervousness and hesitancy of response that is typical in most employment interviews. This may best be accomplished by the individual running through mock interview situations with his friends or with trained counselors. In this way, he gets the opportunity to practice his responses orally, while gaining confidence in handling spontaneous questions and comments.

□ The suggestions that we have offered will not automatically guarantee every blind applicant a favorable response to his job application nor will it guarantee him a positive and satisfying job interview. However, if our suggestions are followed individually by blind applicants for educational positions and if the various state and federal associations serving the blind will increase their joint efforts in promoting and pushing the worth of blind employees, then the opportunities for the gaining of meaningful employment for blind and partially sighted persons should improve dramatically.

A Final Word

Robert S. Bray Retires

The chief of the Division for the Blind and Physically Handicapped, Library of Congress, Robert S. Bray, has retired after more than 15 years in that post and 37 years in government service. In recognition of his leadership in the improvement of library services to blind and physically handicapped persons during that period, Mr. Bray was the recipient of the American Foundation for the Blind's Migel Medal, the Francis Joseph Campbell Citation and Medal of the American Library Association's Round Table on Library Service to the Blind, and the Library of Congress distinguished service award.

During Mr. Bray's tenure, 23 regional and 60 subregional libraries have been added to the Division's service delivery network. The number of readers served has increased from 58,000 in 1957 to more than 300,000 in 1972. The Division's staff has increased from 22 to 99. Improvements in service include many technical and mechanical advances, broadened selection of books and periodicals, and the extension of services to many additional categories of persons.

Charles Gallozzi has been named acting chief of the division.

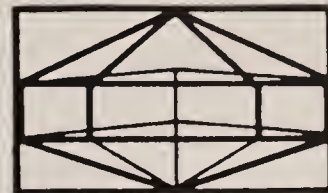
New Regulation Simplifies Claiming Blind Exemption for Federal Income Tax

Under Treasury Department regulations, a blind taxpayer or blind spouse is entitled to an extra personal exemption for federal income tax purposes. To claim this exemption in the past, however, a person who was not totally blind but otherwise qualified as blind had to attach an eye doctor's or registered optometrist's statement that the individual met the required conditions for that year to each year's tax return. Now, a change in the regulation (T.D. 7230, December 21, 1972) provides that if the "examining physician certifies" that the condition is irreversible and a copy of the certification is filed with the return for that year, *no further certifying statements need be attached to later returns so long as the condition remains irreversible*. A copy of the certified opinion must be kept by the taxpayer and a simple statement referring to the opinion must be attached to future returns claiming the exemption.

From the Editors

Some readers of the recorded edition of the *New Outlook for the Blind* may have noticed that in several recent issues a number of short items appearing in the print and braille editions have not been included. The editors deeply regret this, but the decision to delete some material (fillers, bibliographies, and portions of "Current Literature" and "In Brief") has been required by the time limits of the disc. As noted in the December 1972 issue, an effort is being made to find the best possible solution to the problem.

The editors would like, once again, to ask that readers of the recorded edition send in their preferences (ranked according to first, second, third, and fourth choices) for a change from disc to flexible record (soundsheet), to open-reel tape, or to cassettes; or a reduction in the size of the print edition from 48 pages per issue to 40 pages, thus allowing for recording of the whole issue on a single disc. All comments should be sent to the *New Outlook for the Blind*, 15 West Sixteenth Street, New York, New York 10011.



A Ground Floor Room

It was just about the time I was feeling most sorry for myself, on that first day in college, that my roommate barged in.

"Well, hello," he boomed. Several suitcases and boxes cascaded into the room and went slithering across the linoleum floor after a healthy kick started them moving. "Doc Anderson said you and I are going to be roomies, roomie. Sorry I haven't got time right now to chew the fat, but I just blew into town and there are some folks I have to look up. I'll be back after supper. Don't worry about the junk—I'll straighten it all up later. Just shove it out of your way. Be seeing you, roomie."

My roommate was gone in a breeze, and the only name I knew him by was the rather silly counterpart of my own—"Roomie." I returned to my interrupted self-commiseration.

It was a warm September Sunday afternoon. Through the open windows of my ground floor room, I could hear the sounds of an excited campus, throbbing with the expectancy of the moment, vibrating with the voices and movements of a multitude of gay young people. Only I seemed to have nowhere to go, no one to greet, nothing to do.

"Hey, Wilson," a more mature voice echoed down the corridor with sufficient strength to penetrate not only the door, but also my melancholy. "Did you meet the blind boy? I hope you didn't mind being put in with him, but I figured you were the best one in the hall."

Whether it was the door or the numbness of my mind over the "blind boy" identification, I cannot say, but the answering voice was not distinguishable. The next intelligence that filtered through

was, "You were the only upperclassman with a ground floor room who didn't have a roommate, and I had to put the blind fellow on the ground floor. He might hurt himself climbing all those stairs and—well, he's more out of the way of the other guys in that corner."

True to his word, "Roomie," whose name really was Wilson, came back, and as he had said, after supper. I really wasn't hungry—or so I had told myself. I had wondered how to get over to the cafeteria that the literature said was in a building nearby called the Commons. It did seem that all those other fellows sure were hungry. During the supper hour the building and its immediate campus environs were desolately silent, and I figured that everybody in the world was eating Sunday supper—except me, that is.

"Golly, I'm pooped," Wilson said, as he dropped onto the bed under the window. Then, evidently struck by a new thought—"Say, do you care what bed you have? Personally, I like this one. Slept in it all last year. But you can have it if you want it. Well, if you're sure you don't mind. Say, Roomie, Doc Anderson said you're blind. It's a funny thing, but you don't look it."

"I guess Doc Anderson also told you that I had to be put in a ground floor room so I wouldn't break my neck," I said sarcastically as I sat down on the bed along the wall that had suddenly become clearly and somewhat satisfyingly my own property. "Or is it that I will be out of the way back here? And, by the way, I gather your name's Wilson, and in case you're interested, mine's Barnett."

In the noticeable interval of quiet which followed, I would have thought my pooped roomie had gone to sleep, except I was sharply aware that I was being

studied. Then, "I guess you overheard Doc in the hall. Don't let it worry you, fellow. He's like that. Heart of gold and all that, and we all love him—but he doesn't have much tact. Yeah, my name's Wilson, and I'm glad to know you. Be a little quiet now, freshman, I'm going to get some sleep."

The next morning I was hungry. I was also conscious of the fact that registration opened at an early hour. I must have been showered and shaved (I knew where the showers were) by seven. Fully dressed, I stood in the middle of the room and realized that I still did not know how to get to the cafeteria. I also realized that Wilson was dead to the world and showed no sign of awakening. I moved down the hall and to the dormitory door, out on the walk and stopped. There was not the faintest sound—not a single campus pedestrian. It seemed like everybody in the world was sleeping and no one was hungry—except me, that is. I went back to the room.

"Oh, I'm awfully sorry," I said, as the door to the ground floor room slammed shut and Wilson almost leapt out of bed from the shock. "I didn't mean to wake you. I was just on my way to breakfast. Care to go along?"

"Me? I never eat breakfast. See you later." And turning over in bed, Wilson began again to snore.

"But don't you have to register?" I asked, as an accidental dropping of my metallic stick made Wilson start up from the bed a second time.

"Sure," he said, "but not until this afternoon. Now run along to breakfast like a good roommate and let a man get some sleep."

Well, I made it. It was easier to do than my fears would have led me to believe.

Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

A full stomach aided in the restoration of my self-confidence. However, and although some helpful coeds steered me back to the right crosswalk to the dorm, that's just where I found myself—back in the ground floor room with the sleeping Wilson. I was beginning to get nervous about the mystery and the necessity of registration. I might hang around and wait for Wilson; but I could see, by now, that there was no depending on him. He had made it very clear that he didn't want to be bothered. "Bothered," my mind said over and over again, "by a blind roommate." Anger came to cover the self-pity. I moved again to the door, down the hall, and around a corner much more rapidly than I might otherwise have done—and met Doc Anderson in a head-on collision.

"Hey," he yelled. "You shouldn't go running around like that. You'll get hurt." He overlooked the fact that he was the one on the floor and I the one still standing.

"I'm awfully sorry," I said, my favorite expression that day. "I have to go to the administration building and register."

"Well, then, wait just a darned minute and I'll get somebody to go with you."

"No, thanks," I retorted, and went out the front door, down the walk as far as the crosswalk to the cafeteria, and bravely started in the direction of the administration building.

It all turned out fine. Students lent a hand along the way. The chief clerk at the registration room knew my name. A packet of papers was ready for me. A faculty counsellor was waiting—that is, I was to

wait at his desk until he finished with a mob of equally uncertain freshmen ahead of me. The counsellor not only cleared up most of the academic mysteries and the campus schedule, he was also prepared to discuss my problem as a blind student. There would be two readers assigned to me (this was the day of the National Youth Administration, and reading scholarships paid 25 cents an hour). My teachers would permit me to get exam questions in advance in braille and do the exam in my room on the typewriter. The university would take up the question of whether I would have to take the required laboratory science course and on and on and on.

Lunch and supper came through nicely, too. The kids who were to be my readers, for example, and a couple of green fellows from the dorm who would be in the same classes and said we might study together, they were hungry, too. I hardly saw Wilson again that day.

"Say, Barnett," he said, as he wandered in about midnight. "What sort of class schedule did you get hung up with?" When I told him sourly that I had an eight o'clock class every morning: "Well, that's really strange. So do I. I think I can get my schedule changed, though, in a couple of weeks. In the meantime, if you'll wake me up, I'll run along to breakfast with you and then drop you off at the classroom you go to."

It was six months later, after many pleasant hours both in the room and on weekend jaunts with Wilson, that I learned from a chance conversation that Wilson never did have an eight o'clock class. It

was not until a Homecoming chat 15 years later that I learned where the dorm supervisor had gotten the suggestion that the blind boy be placed in Wilson's room. It had come from the Dean of Men, and he had gotten it during a pre-school conference with an upperclassman—Wilson.

Reprinted from the November 1960 issue of the New Outlook for the Blind.

Attitudes?

In October I had reason to travel to Chicago and Louisville. The first city was the setting for a regional conference on attitudes about blindness and the Louisville event had to do with employment of the handicapped—pretty much the same theme. It was a satisfying, albeit tiring, trip. Upon my return to LaGuardia, it was a relief that the skycap was able to put me in a taxi without delay or inconvenience.

As we approached the Foundation—having given the 15 West 16th Street address—I sought reassurance from the driver that we were where I wished to be. I said I was looking for the American Foundation for the Blind. He said that he knew it well, and I asked why.

"My brother-in-law belongs to it."

"What do you mean belongs to it? He works here?"

"No, no, no. He's a musician, and he graduated from the New York Institute."

"God bless you," I said, and he accepted with gusto my half-dollar tip.

—M.R.B.

OPTISCOPE™ ENLARGER

A **NEW** MEDICAL INSTRUMENT
for the **LEGALLY BLIND** and **PERSONS** with **LOW VISION**.
A **NEW** MOTIVATIONAL AID for **LEARNING**.



- clear image
- full color and black and white
- completely safe
- portable
- low cost

\$295⁰⁰

C.O.D./f.o.b. Hempstead, N.Y.

New help for the legally blind. The OPTISCOPE ENLARGER makes reading a pleasure once again by displaying large areas of type. It holds books or newspapers of any size, and reproduces in full color and black and white.

The OPTISCOPE ENLARGER is a low maintenance, portable (weighs only 14 pounds), precision instrument designed for years of service.

For ordering, or for more information, write or phone:

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322



Teaching About Vision, by the Joint Study Committee on Vision of the American School Health Association and the National Society for the Prevention of Blindness. Second edition, revised. New York: ASHA-NSPB, 1972. 71p. \$2.00.

Directory of Facilities for the Learning—Disabled & Handicapped, by Careth Ellingson and James Cass. New York: Harper & Row, 1972. xii + 624p. \$15.00 cloth-bound; \$6.95 paperbound.

Reviewed by Susan Jay Spungin

The 1972 edition of *Teaching About Vision* is revised and expanded to include vision screening, lighting, safety school policies and standards, and vision as it relates to learning disabilities. The chapters on the anatomy and physiology of the eye are greatly expanded and include many more pictures and diagrams.

This new edition serves as an excellent teaching guide for classroom teachers and/or health educators with specific suggestions and activities for different grade levels. Generally, this book is a good reference in helping children to increase their understanding and appreciation of vision.

The *Directory of Facilities* . . . attempts to provide a comparative picture of diagnostic facilities and programs in the United States and Canada for the learning disabled and handicapped individual. The authors draw a definite distinction between neurological dysfunction and/or learning disabilities from other serious physical, intellectual, or emotional handicaps.

The facilities are analyzed for their diagnostic procedures as well as their remedial, therapeutic, and developmental programs. The kind of things covered include: kinds of disabilities a facility is

prepared to evaluate and diagnose, the size of the annual case load, ages for evaluation, regulations governing referral sources, length of time a client must wait after making initial contact, and fees charged. Other details include diagnostic procedures, specialists available for consultation, core battery of testing instruments, parent conferences, faculty, and funding.

Although this is by no means a complete listing of facilities, it is an excellent reference for both professional and lay people. Its inherent weakness, however, lies in the fact that it is impossible to keep up to date, as exemplified by the fact that in this 1972 edition the data is already two years old.

Mrs. Spungin is a specialist in education at the American Foundation for the Blind, New York City.

Oklahoma-Arkansas-Kansas Regional Leadership Seminar, edited by Billie Elder. (Available in large print or braille from the editor, 2811 Fair Park Boulevard, Little Rock, Arkansas 72204.)

Reviewed by Patricia Scherf Smith

This is a summary of a seminar held for members of the Oklahoma, Arkansas, and Kansas chapters of the American Council of the Blind. In brief form it outlines the various factors involved in leadership and participation in membership organizations.

Among the subjects covered are public relations, publications, fund raising, increasing membership, and methods for effecting legislation. While the summaries are brief, they are generally good; in some cases specific suggestions are offered.

The heart of the book is the discussion of the role of such an organization generally and the role of the individual members specifically. It is a good introduction to the ways in which members of organizations, whether they be of blind persons or others, can help the organization to

be more effective in accomplishing its established goals.

The book was prepared, printed, and bound at the Arkansas School for the Deaf for the tri-state group. The proofreading leaves something to be desired, but the content is valuable, especially to those persons who are relatively new at playing leadership roles. It also serves as a good example of how to structure a leadership seminar.

Mrs. Smith is managing editor of the New Outlook for the Blind.



A special forum for individuals to respond in detail to material published in the New Outlook for the Blind, or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be 350-1,000 words in length.

Dance and Creative Movement for Blind Persons

Marcia Rand

In the summer of 1970, as a part of the "Community Outreach" program of the Connecticut College American Dance

Festival, I volunteered to teach dance to two classes of blind girls at the Harkness State Park in Waterford, Connecticut. I was with the Lucas Hoving Dance Company at the time, but I had given much thought and some time to working with blind children. Based on my experience with those two groups, I returned the following summer to devise an entire program for teaching dance to blind persons of all ages.

Because of his handicap and the general absence of any effort to develop the dance in blind persons, the idea of dance has little meaning for someone who has

been blind all or most of his life. For those individuals who might have been dancers had they not been blind, learning more about their own potential for creative movement could be very rewarding. I know that the "virgin," unstereotyped movements that I have seen created by congenitally blind persons is often an awesome display of connecting of inner motivation to an outer body language.

What I find most frustrating when I encounter a new group of blind students is their poor body tone and lack of awareness of their bodies. This condition is, I think, the result of preconceived notions

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

of what blind persons are capable of doing physically. I feel that the dance experience can greatly improve balance, strength, agility, fitness, poise, and independence, as well as providing physical outlet for the release of tensions.

In the first two weeks of the program the second summer, I worked with 20 middle-aged and elderly men and women with assistance from ten student volunteers from the Connecticut College American Dance Festival. I was a little concerned at first about how much I could expect from them, especially since many of them were over 60. I started with basic rhythm studies: clapping in time and in parts, syncopation, and canon. This was then applied to small movements. I also worked on basic warm-ups, focusing on isolation of body parts. Some of the early difficulties they experienced seemed to be a result of their day-to-day experience of making only necessary, functional movements and only rarely moving arbitrarily.

I experimented with space, time, and energy exercises in which the various terms were combined in several ways. For example, I had them pass a ball around a circle at a given beat. As the beat quickened, the energy had to become greater and the time and space smaller.

Learning to jump was their most significant accomplishment. The essence of jumping is not to be touching or holding on to anything stationary, a condition which at first made them very nervous. I taught them to overcome this fear by asking them to hold hands in a circle. They were asked to pick up first the right knee, then the left knee, then both at once. A particularly memorable moment in this class arose when I asked them to experiment with moving all the parts of the body at once. One woman decided that this was best done by jumping, which, without holding on to anything, she proceeded to do. The entire class became very quiet and a spontaneous round of applause broke out for her. In the next class, I was then brave enough to ask them (as casually as I could) to all jump without holding on—and they did.

Because of their age, there was a real

limitation on how far they could advance, but by the last class they had nevertheless become very sophisticated in their rhythm studies, their dance vocabulary had grown, and their body awareness had increased tremendously. Perhaps the biggest revelation for them was learning about the expressive power of the isolated parts of their bodies, e.g., a clenched fist might mean anger, free swinging arms might be used to express joy. They had learned many new ways to express what was inside of them.

The second class involved boys and girls seven to 12 years of age. The boys were highly energetic, but their interest wandered. They were greatly attracted to the strong rhythms of the drums and thus could be involved in rhythm games and studies. The drummer interpreted the rhythm of the syllables in each boy's name and they challenged him with requests for their favorite drum beats. After a vigorous warm-up, I asked the boys to move like racing cars, lions, kangeroos, football players, etc. I asked them to string four of these movement patterns together into a space of 12 counts. Although they thoroughly enjoyed the movements, they still regarded dancing as "sissy-stuff." Nevertheless, they were all there and ready to go at the next class.

The girls were much more intrigued by the idea of dancing lessons and even though their energy level was not as great as the boys', their interest more than made up for it. As with the adults and the boys, we began with rhythm studies, isolation, and warm-up. In addition, we worked on breathing and how it affects movement; for example, a very strong, short breath might indicate a percussive movement or a long sigh might indicate a more flowing movement. I asked them to move like grass, the wind, the sea, and other things in our environment, since the class met outdoors near the ocean.

One exercise in particular was helpful in conveying the idea of dance movement to these blind youngsters. I asked them to choose their own way of 1) hanging clothes on a line, 2) sitting and writing, 3) lying and sleeping, and 4) kneeling in

prayer, and then to remember each of these four movements as a position. As I called the number of each position, each of which involves a change of level (sitting, standing, etc.), they had to assume that position. Beginning slowly and asking them to notice the transitions between these movements, I began using the "and" in the counting ("one and, two and, etc.") to indicate the transition. I accelerated the pace and asked them to notice how the alternation of position and transitional movements was creating a continuous and harmonious sequence, i.e., a dance.

Based on these exercises, the children discovered that they could choreograph a dance; they began to understand the fundamental concepts of the dance, the relation between the structure of the whole and development and unfolding of the individual parts. The highlight of the class was a game called "sculpture garden," in which I asked my assistants to assume a pose which the children would feel and then try to copy. The poses got more and more complicated and harder to execute, but the children succeeded in figuring out the movement even if they could not quite copy it.

With the help of the League for the Handicapped in San Francisco and the San Francisco Dance Theater, I am at present teaching a class of eight blind children, ranging in age from six to 17, three Saturdays a month. The basic exercises, games, and warm-up are similar to those developed in my earlier classes with blind persons. More emphasis, however, is given to bending and stretching exercises and more vigorous activities to limber and tone the muscles. We also explore different aspects of "creative dance" using various images, superimposing physical interpretations of them to rhythmical phrases. The class usually ends with a period of highly energetic movements of their own choice inspired by some contemporary rock music.

In conclusion, I would hope that somehow an extended program of technique and choreography for young blind students could be established. I am sure there would be substantial gains for the

You can help a blind person read and write.

More than 100,000 people in this country are classified legally blind.

Yet at least half of them have enough residual vision to read virtually anything in print . . . and even write in their own hand, with the help of Apollo's Electronic Visual Aid.

Here's how:

In a system designed specifically for the partially sighted, Apollo employs high resolution television to compensate for visual impairments.

The sophisticated electronics of the EVA simultaneously magnify, intensify the brightness and raise the contrast of normal reading material to a level that is legible even to many severely handicapped people.

Even fine print and low contrast colors are electronically converted to a large, crisp, glareless black and white image on a highly refined 17" television monitor.

And the system is very easy to use.

The reading material or writing pad is placed on a 16" square "scanning table," which supports it in position under the camera. Easy fingertip control glides the table smoothly in all directions for reading or writing.

A zoom lens system provides for instant change of magnification, from 4X to 40X as required.

The entire system (table, camera stand and monitor) occupies about a 2½ foot square on the desk or table top, and is so portable it even comes with a travel case.

It can, in fact, be used with a conventional television receiver, if desired.

What does all this mean to the partially sighted?

Independence. No longer restricted to special large print editions, readers or talking books, he can read virtually anything in print. Including today's newspaper, today.

And he can write. Reports, personal letters, memoes, even checks, so he can keep his own accounts. Privately. **Independently.**

There is even a typewriter attachment available, so he can type, use an adding machine or any other office machine.

The EVA could well make the difference in getting or keeping a job for the partially sighted.

How can you help?

If you know anyone who is or is becoming partially sighted, make sure he knows about Apollo's Electronic Visual Aid . . . low vision clinics, schools and other service institutions are now making the EVA available to hundreds of individuals.

Or call or write Apollo for more information on how you can help him obtain his own EVA.

Prices start at under \$1,000; State and Federal funds are available for qualified people.



Apollo's Electronic Visual Aid.

Independence for the partially sighted.



A limited number of key areas are now open for representation.

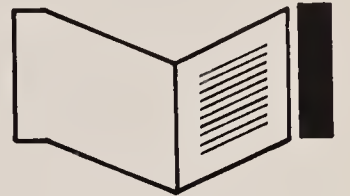
Apollo Lasers, Inc., 6365 Arizona Circle, Los Angeles 90045 (213) 776-3343

student who learns the means of freeing the body by strengthening it and who becomes familiar with all the parts and energy levels of the body. I am not interested in "pasting" positions onto the student, but rather trying to tap the un-

touched, pure, expressive movements which I believe he has. As a performer and teacher of dance, I hope that I can touch and perhaps inspire some of my students. I am particularly gratified when I succeed in doing this with my blind students.

(Ms. Rand wishes to express her gratitude to Richard Rand, Lucas Hoving, and Charles Reinhart for their help in initiating the classes now being conducted by her in San Francisco.)

Current Literature



A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind prepared by Mary Maie Richardson, chief librarian.

Fourth International Conference on Deaf-Blind Children, August 22-27, 1971, at Perkins School for the Blind, Watertown, Massachusetts, sponsored by the Committee on Deaf-Blind Children, International Council of Educators of Blind Youth. Perkins School for the Blind (175 North Beacon Street, Watertown, Massachusetts 02172), [1972]. 358p. \$5.00. The theme of the conference was "Serving Deaf-Blind Children." Thirty-one papers are reprinted in the areas of early communication, learning difficulties, behavior modification, rubella children, social and sexual problems, training of personnel, and parent counseling. Several of the papers are descriptive of the programs and facilities in various countries.

A Selected Bibliography Relating to the Education and Training of Deaf-Blind Children and Communication-Disordered Children with Sensory Impairments: 1910—Spring 1972, prepared by Perkins Research Library and the Evaluation Service of the Department for Deaf-Blind Children. Perkins School for the Blind (see address above), August 1972. 77p. \$2.00. This classified bibliography lists books, pamphlets, articles, and unpublished papers available in the Research Library of

Perkins School for the Blind. The table of contents gives the various categories and their sub-divisions and there is an index by author.

Communication and Computation Skills for Blind Students Attending Public Schools, prepared by the staff of the Visually Impaired Program, Board of Cooperative Educational Services, Third Supervisory District of Suffolk County, New York. 1972. 37p. Description in outline form of some of the services to blind children enrolled in regular classes in the 18 school districts encompassed by the Visually Impaired Program. The guidelines concern the teaching of reading, writing, and mathematics, not only mechanics but readiness evaluation techniques as well. A ten-page bibliography is included. While the supply lasts, copies are available from Mrs. Josina Bakker, Program Supervisor, BOCES Visually Impaired Program, 333 West Hoffman Avenue, Lindenhurst, New York 11757.

Studies in Blind Mobility, by J. Alfred Leonard. *Applied Ergonomics* (IPC Science and Technology Press, Ltd., IPC House, 32 High Street, Guildford, Surrey, England), Vol. 3, No. 1, 1972, pp. 37-46. A review of the work done at the Nottingham Blind Mobility Research Unit in England.

Electrocutaneous Stimulation in a Reading Aid for the Blind, by Roger D. Melen and James D. Meindl. *IEEE Transactions on*

Bio-Medical Engineering (Institute of Electrical and Electronics Engineers, Inc., Box A, Lenox Hill Station, New York, New York 10021), Vol. BME-18, No. 1, January 1971, pp. 1-3. Investigations conducted at Stanford University indicate that electrocutaneous stimulation is not practical as a replacement for the tactile stimulation now used in the Optacon reading aid.

Aversive Tickling: A Simple Conditioning Technique, by Robert J. Greene and David L. Hoats. *Behavior Therapy* (Academic Press, Inc., 11 Fifth Avenue, New York, New York 10003), Vol. 2, No. 3, July 1971, pp. 389-93. Report on the use of aversive tickling with two blind, retarded, adolescent girls in an attempt to reduce self-destructive and attention-getting behavior.

Print Reading for Visually Handicapped Children, by K. C. Sykes. *Education of the Visually Handicapped* (1839 Frankfort Avenue, Louisville, Kentucky 40206) Vol. 4, No. 3, October 1972, pp. 71-75. Review of research concerning type size, print quality, lighting intensity, reading distances, subject matter, and the correct use of optical aids.

Effects of Physical Size and Complexity on Tactual Discrimination of Blind Children, by Edward P. Berlá. *Exceptional Children* (The Council for Exceptional Children, Jefferson Plaza Suite 900, 1411 S. Jefferson Davis Highway, Arlington, Virginia 22202), Vol. 39, No. 2, October 1972,

pp. 120-24. Tests using three physical sizes and three levels of complexity were used with 18 first grade and 18 second grade braille readers enrolled in schools for the blind.

Biology for the Blind, by Monroe Cravats. *The Science Teacher* (National Science Teachers Association, 1201 Sixteenth Street, N. W., Washington, D. C. 20036), Vol. 39, No. 4, April 1972, pp. 49-50. The author is assistant professor of education at York College of the City University of New York. He describes in detail a laboratory exercise (concerning the human digestive tract) designed to emphasize the use of senses other than sight.

Gift of Gold, by Beverly Butler. Dodd, Mead & Company (79 Madison Avenue, New York, New York 10016), 1972. 278p. \$4.25. Young adult novel by a blind author. The central character is a blind college girl who is studying to become a speech therapist.

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind prepared by the editors.

Agency Administration

Evaluating Social Programs: Theory, Practice, and Politics, edited by Peter H. Rossi and Walter Williams. Seminar Press (111 Fifth Avenue, New York, New York 10003), 1972. 326p. \$10.95.

Recruiting, Training and Motivating Volunteer Workers, by Arthur R. Pell. Pilot Books (347 Fifth Avenue, New York, New York 10016), 1972. 62p. \$2.50.

Aging

The Aged Are People Too, by Mary Buckley. Kennikat Press (90 South Bayles Avenue, Port Washington, New York 11050),

1972. 174p. \$7.95. About William Posner and social work with older people. Introduction by Arthur S. Farber.

Housing

The November-December 1972 issue of *Rehabilitation Record*, Vol. 13, No. 6, published by the U.S. Rehabilitation Services Administration (available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), is devoted entirely to reports on housing programs, including "Congressional Hearings on Barriers"; "Promise on the Prairie," by Susan D. Bliss; "Long Term Residential Facilities," by Joseph Fenton; "Therapeutic Housing," by Charles Richmond; "Dynamics of Residential Living," by Karl Grunewald; "Architectural Barriers Removal," by Bruce J. Tillman; "Home Ownership Brings Hope and Opportunity," by John F. Mulvihill, Jr.; and "Accessible Housing for Boston's Disabled," by Harold S. Remmes.



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation

Pamphlets

Helping the Child Who Cannot Hear, by Samuel Moffat. Public Affairs Pamphlets (381 Park Avenue South, New York, New York 10016), 1972. 28p. \$0.25.

Psychology and Perception

The Sense of Self—A Guide to How We Mature, by Lorene A. Stringer. Temple University Press (Broad and Montgomery Avenues, Philadelphia, Pennsylvania 19122), 1971. 170p. \$8.50.

Slaughter of the Innocents: A Study of the Battered Child Phenomenon, by David Baken. Beacon Press (25 Beacon Street, Boston, Massachusetts 02108), 1972. 128p. \$2.95.

Social Work

Early Supports for Family Life: A Social Work Experiment, by Ludwig L. Geismar, et al. Scarecrow Press (P.O. Box 656, Metuchen, New Jersey 08840), 1972. 235p. \$6.50.

The Social Work Interview, by Alfred Kadushin. Columbia University Press (562 West 113th Street, New York, New York 10025), 1972. 337p. \$12.50.

Time and Quality in Graduate Social Work Education, by Frank M. Loewenberg. Council on Social Work Education (345 East 46th Street, New York, New York 10017), 1972. 58p. \$1.50. A report of the Special Committee to Study the Length of Graduate Social Work Education.

Undergraduate Social Work Education: Today & Tomorrow, by Donald Feldstein. Council on Social Work Education (345 East 46th Street, New York, New York 10017), 1972. 72p. \$3.00.

Vocational Rehabilitation

Computer Technicians—Three New Jobs a Day, by Dixie Sommers. *Occupational Outlook Quarterly* (Bureau of Labor Statistics, U.S. Department of Labor; available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Vol. 16, No. 3, Fall 1972, pp. 18-20. A discussion of the occupation of computer technician: a description of the duties, tools, qualifications, and an appraisal of the current and future employment opportunities.

Job Placement of the Emotionally Disturbed, compiled by Lawrence J. Blum and Richard K. Kujoth. Scarecrow Press (P.O. Box 656, Metuchen, New Jersey 08840), 1972. 453p. \$12.50.

Welfare

An American Philosophy of Social Security: Evolution and Issues, by J. Douglas Brown. Princeton University Press (Princeton, New Jersey 08540), 1972. 244p. \$8.50.

Public Policy at the Turning Point. Public Welfare: The Journal of the American Public Welfare Association (1313 East 60th Street, Chicago, Illinois 60637), Vol. 30, No. 4, Fall 1972, pp. 18-52. Seven articles dealing with different aspects of the current crisis in the public welfare system. Contents: "How Relevant Is Family Counseling in Public Welfare Settings?" by Florence W. Kaslow; "Why Change Is Necessary," by Jule M. Sugarman; "Welfare Policy and the Voting Public," by Ira M. Cutler; "Crisis in the Counties," by Gilbert G. Dulaney and Kenneth J. Badal; "'... We Need to See Beyond the Patchwork ...,'" an interview with Guy R. Justis; "Reality Shock in a Public Welfare Setting," by Larry Styza; "Through the Loopholes—A Study of Public Assistance Rejectees," by Martha N. Ozawa, Robert A. Turcotte, and Anita L. Wahl.

Work and Welfare Go Together, by Sar A. Levitan, Martin Rein, and David Marwick. The Johns Hopkins University Press (Baltimore, Maryland 21218), 1972. 143p. \$7.50 cloth; \$2.50 paper.

In Brief

■ A \$4.5-million building program will be begun late this year by the Pittsburgh Branch of the Pennsylvania Association for the Blind. The program, which will add 53,000 square feet of usable space, will be accomplished in two phases. In the first, a four-story building will be constructed adjoining the existing facility. The new building will contain expanded and improved office space, a separate din-

ing room, conference rooms, space for volunteer workers, a model apartment for training, a telephone sales room, and space for program expansion. The second phase will include renovation of the present building to provide for improvement of existing workshop programs and to separate the recreation area. Modernized heating, plumbing, and electrical systems will serve the combined facility. Archi-

tectural improvements, such as passenger elevators and ramps, are also to be added.

■ The Seeing Eye, Morristown, New Jersey, upon the recommendation of its Grants Advisory Council, recently granted \$100,000 to support the research and development of the Tactile Vision Substitution System (TVSS). Now in the experimental stage at the Smith-Kettlewell In-

stitute of Visual Science, San Francisco, the TVSS uses a miniaturized camera mounted on ordinary eyeglass frames. The images captured by the camera are "applied" to the skin by means of a special pad worn by the blind person. An array of electrodes in contact with the skin enables him to track the direction and rate of speed of moving objects and to determine their position, relative size, shape, number, and orientation. Although many improvements have been made on the device, it is still in a primitive form requiring much more work.

■ Alert, Inc. (6 Hillcrest Road, Towaco, New Jersey 07082) has begun marketing an indoor-outdoor game system called "Pony Alert." Featuring colorful age-graded plastic horses which are maneuvered on casters through a variety of games, the system was designed to help sharpen the physical, mental, and social skills of orthopedically disabled, mentally retarded, emotionally disturbed, deaf, and blind children. The system is adapted for use with a specific handicap through a variety of available accessories.

■ Elliott G. Young, 60, director of recreation and camping services at the New York Association for the Blind, New York City, died suddenly while attending a professional conference in Cortland, New York.

■ Crown International (1718 West Mishawaka Road, Elkhart, Indiana 46514), a subsidiary of International Radio and Electronics Corporation, recently unveiled a prototype of its Speech Rate Translator (SRT-1). Operated in combination with an SP844 four-track tape player and a five-speed variable tape drive system, the SRT-1 allows the user to compress or expand the playback with no change in pitch from the original. The system offers true quadrature binaural outputs that are of professional, broadcast quality. The unit is priced at \$3,795. Complete specifications are available on request from the manufacturer.

■ National Camps for Blind Children, a special referral service provided by the Christian Record Braille Foundation (Box 6097, Lincoln, Nebraska 68506), has begun

its 1973 Operation Blind Camp Campaign with the selection of two poster boys. Eleven camps were held in various parts of the country in 1972, with children from 41 states and two Canadian provinces attending. Any child who is legally blind and nine to 18 years of age is eligible to attend one of the camps free. Field representatives of the Foundation make this service available to the blind children in their area. Application can be made directly to the national office in Lincoln.

■ John L. Naler, executive director of the American Association of Workers for the Blind, has resigned that post. Applications for the position may be sent to Robert H. Whitstock, president-elect of AAWB, at the Seeing Eye, Inc., P.O. Box 375, Morristown, New Jersey 07960.

Appointments

■ National Accreditation Council for Agencies Serving the Blind and Visually Handicapped, New York City: **Gerald F. Topitzer**, research associate; **Anthony F. Kohut**, staff associate for development.

■ U.S. Office of Education: **Robert T. Filep**, associate commissioner for educational technology and director of the National Center for Educational Technology; **William L. Smith**, associate commissioner for educational personnel development and director of the National Center for Improvement of Educational Systems.

■ U.S. Department of Health, Education, and Welfare: **Sidney P. Marland, Jr.**, assistant secretary of education (heading the new Education Division within HEW, consisting of the Office of Education and the new National Institute of Education).

■ Idaho State School for the Deaf and Blind, Gooding: **Lee W. Robinson**, assistant superintendent of programs for the visually handicapped.

Coming Events

February 2-6 Southeastern Educational Congress of Optometry, Atlanta.

February 11-14 Council for Exceptional Children and American Vocational As-

sociation, Special Conference on Career Education for Exceptional Children and Youth, New Orleans.

February 25-March 3 American Society of Contemporary Ophthalmology, Annual Meeting, Miami Beach, Florida.

March 15-17 Association for Children With Learning Disabilities, 10th International Conference on Learning Disabilities, Detroit.

March 18-21 Congress of New England Council of Optometrists, Boston.

April 8-14 National Library Week.

April 22-28 Council for Exceptional Children, 51st Annual International Convention, Dallas.

April 25-26 American Geriatrics Society, 30th Annual Meeting, Beverly Hills, California.

May 3-7 Association for Research in Vision and Ophthalmology, Annual Spring Meeting, Sarasota, Florida.

May 7-10 National Braille Association, National Conference, San Francisco.

May 27-30 Medical Library Association, Kansas City, Missouri.

May 27-31 National Conference on Social Welfare, 100th Annual Forum, Atlantic City, New Jersey.

May 28-30 American Ophthalmological Society, 109th Annual Meeting, Hot Springs, Virginia.

May 28-31 American Orthopsychiatric Association, 50th Annual Meeting, New York City.

June 10-14 Special Libraries Association, Pittsburgh.

June 18-29 Workshop in Rapid Reading of Braille, Culver-Stockton College, Canton, Missouri.

June 24-28 Israel National Society for Rehabilitation of the Disabled, International Symposium on the Disabled Adolescent, Bat Yam, Israel.

June 24-30 American Library Association, Annual Convention, Las Vegas.

June 25-29 American Home Economics Association, Atlantic City, New Jersey.

June 27-30 American Optometric Association, 76th Annual Congress, San Francisco.

August 14-18 Blinded Veterans Association, 28th National Convention, Atlantic City, New Jersey.

A New AFB Film

What Do You Do When You See A Blind Person?

13-1/2 minutes long, 16mm color

The film is a light treatment of a serious problem. How can a sighted person best help and understand a blind person? It is made for a general audience of all ages.

Purchase price \$75.00. Loan \$7.50 per showing. Available through the Public Education Division,

American Foundation for the Blind

15 West 16th Street
New York, New York 10011



BACK ISSUES OF THE NEW OUTLOOK

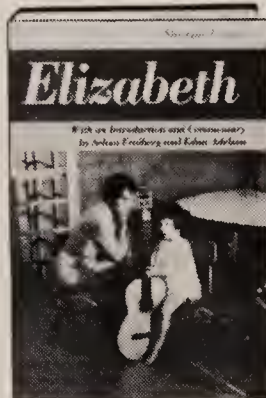
1973—60 cents each

1969-1972—75 cents each

Prices on request for issues from 1968 or earlier

Because not all back issues are available, except for the most recent, inquiries about specific issues desired should be submitted before placing an order. For those issues that are out of print (or for particular articles rather than whole issues), photocopies can be made at a rate of ten cents per page. Payment must accompany all orders totaling \$6.00 or less.

Order from: **New Outlook for the Blind**
15 West Sixteenth Street
New York, New York 10011



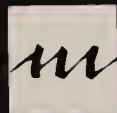
SHARON ULRICH
Elizabeth

With an Introduction and
Commentary by
Selma Fraiberg and
Edna Adelson
(Child Development
Project, Ann Arbor)

"The story of a blind child's first five years as only a loving, intelligent, perceptive mother can tell it. Not only parents of children, but all of us can learn much from this detailed account. . . . Highly recommended. . . ."

—Joseph H. Di Leo, M.D., *Library Journal*
Eight pages of photographs **\$4.95**

FROM YOUR LOCAL BOOKSELLER OR ORDER DIRECT.



**The University
of Michigan Press**
ANN ARBOR

New from AFB

ART NOT BY EYE

**The Previously Sighted Visually Impaired
Adult in Fine Arts Programs**

Yasha Lisenco, Ph.D.

From the Introduction

"People are enriched by aesthetic experiences. The need for such experiences exists whether the individuals are sighted or blind. For those without sight the fine arts, utilizing tactile senses and conceptual abilities, can be an important means of satisfying this need. . . .

"This book is directed principally to art teachers and administrators of art programs in schools, colleges, professional art schools, and community centers. Its purpose is to assist these teachers and administrators in understanding the problems of blindness as related to the adventitiously blind and severely visually impaired adult art student. It is designed to help the teacher and blind student determine media and techniques which allow the

blind adult to gain the greatest aesthetic satisfactions. The book presents methods for teaching blind and severely impaired adults in integrated art classes. Hopefully, it will help pave the way to full involvement of the blind adult in the community art program."

The Author:

Dr. Yasha Lisenco has been with New York's Jewish Guild for the Blind for 12 years, as an art and craft teacher and as supervisor of the handskills program of the agency's Social Group Work Department. Previously, he has taught congenitally blind adolescents in both a university and a community center. He recently received his doctorate from Columbia University.

November 1972 □ xii + 114p. □ illus. □ \$3.75

Payment must accompany all orders totalling \$6.00 or less.

Order from:

**Publications Division, American Foundation for the Blind,
15 West Sixteenth Street, New York, New York 10011.**

March 1973
Volume 67
Number 3

THE NEW Outlook FOR THE BLIND

CCTV Reading Machines for Visually Handicapped
Persons: A Guide for Selection
Larry Israel
Jogging and the Blind Veteran
Richard W. Webster
Sensory Stimulation: Two Papers
Robert H. Carolan

THE NEW Outlook FOR THE BLIND

March 1973 Volume 67 Number 3

Articles

- 97 A Closed-Circuit Television System as a
Reading Aid for Visually Handicapped Persons
*Philip Davis, M.S., John Asarkof, O.D. and
Carter B. Tallman, M.D.*
- 102 CCTV Reading Machines for Visually Handicapped
Persons: A Guide for Selection
Larry Israel
- 111 Helping Blind Persons to Find and Prepare
for Employment
Jeanne R. Kenmore, Ph.D.
- 116 Jogging and the Blind Veteran
Richard W. Webster
- 119 Sensory Stimulation: Two Papers
Robert H. Carolan
119 Sensory Stimulation and the Blind Infant
126 Sensory Stimulation in the Nursing Home
- 131 Nominations for the Bruce McKenzie Award Are Sought

Departments

- 132 Hindsight
- 133 Review—*Social and Rehabilitation Services for
the Blind*
- 137 From the Field—Closed-Circuit Television Reading Systems
- 138 Comment—Status Quo: A Synonym for Compromise
Bernard M. Krebs
- 139 Current Literature
- 141 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to 75c according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief

M. Robert Barnett

Managing Editor

Patricia Scherf Smith

Associate Editors

Mary Ellen Mulholland

Michael E. Monbeck

A Closed-Circuit Television System

As a Reading Aid for Visually Handicapped Persons

ABSTRACT: *Although most visually handicapped patients can be adequately rehabilitated visually through the prescription of low vision optical aids, some who have very poor vision and who need to do a great deal of reading may be helped through the prescription of a closed-circuit television reading system. It was found that six of 17 patients tested with such a system could benefit from it. The system used includes a push-button operated scanning device (described in the article) for shifting the image on the page.*

A new kind of reading aid for blind and visually handicapped persons, using the technology of closed-circuit television (CCTV), has been under development for the last few years. Such devices enable certain persons who would otherwise rely on sighted readers, braille, or large print to read standard printed material. These systems are designed in particular for the individual who needs to read large quantities of printed material, but who cannot be helped with standard low vision aids. The device under examination here is one developed through a cooperative project of the Massachusetts Commission for the Blind and the Boston University Hospital-Massachusetts Association for the Blind Vision Rehabilitation Clinic (Figure 1).

□ In our experience, as well as in the experience of Fonda (1970) and Faye (1970), many persons with vision as low as 5/200 can use optical devices for reading. However, it is well known that prolonged use of a magnifying device, especially where the visual level drops below 20/200, can be quite tedious due to the short working distance, the small field of vision, and the narrow depth of focus. These factors often limit reading. However, the great majority of persons who are legally blind can, with the aid of low vision optical devices, continue useful occupations or vocations. Of the 260 new patients seen at the Massachusetts Association for the Blind, University Hospital Vision Rehabilitation Clinic during the fiscal year 1970-1971, 195 were considered visually rehabilitated. This means that they were able to maintain a job or were able to return to homemaking chores, including some reading, with the use of optical devices.

If one is truly oriented to the issues and costs of rehabilitation, the utilization of printed material by visually handicapped persons has special significance. Special forms of reading material, such as braille, large type, and tape recordings, are expensive and not readily available except in highly structured settings, such as classrooms. They are not available, for example, in most job situations. Lacking specialized reading material, the obvious approach is to provide magnified images of standard printed matter. A closed-

This article is based on a paper presented at the New England Ophthalmological Society, Spring Meeting, 1971.

PHILIP DAVIS, M.S.
JOHN ASARKOF, O.D.
CARTER B. TALLMAN, M.D.

Mr. Davis was on the staff of the Massachusetts Commission for the Blind and Dr. Asarkof is on the staff of the Vision Rehabilitation Clinic, Gunderson Eye Clinic, University Hospital-Massachusetts Association for the Blind, Boston University Medical Center; Dr. Tallman is medical director of the clinic.

Low Vision Optical Aids

Reading needs



FIGURE 1
The CCTV Reading Aid

circuit television system can provide larger magnification at greater working distances than common low vision optical aids.

The application of CCTV as a low vision aid was first described by Potts, Volk, and West (1959). Chester Weed (1968) and Samuel Genensky (1968) have also described and used CCTV magnifying systems. In these machines, a camera was hand-held or mounted above the reading material, and the reader moved the text by hand to shift the CCTV image from one area of the page to another. Although these systems provide excellent magnification and image quality, the scanning by hand or operation of sliding tables fatigues the reader and discourages prolonged reading. The scanning mechanism described below presents still images of successive portions of a text. By pressing a button, the reader quickly shifts to the succeeding letter-space on the line which is being read. The rapid image shift provides the longest possible time for reading still images, which are preferred to moving letters because the low vision patient has orientation difficulties and often has a reading rate which fluctuates from word to word. In the scanning systems controlled by hand, the reader is forced to read moving images, to tolerate delays between still images, or to lope along the text with a fluctuating gait. Also, at higher reading rates, moving images are blurred electronically on the television monitor. By having finger-touch controls to move the image automatically, it is hoped that reading will be less fatiguing.

Our CCTV reading system can magnify up to 15x. The magnification used and the size of the screen on which it is presented are chosen after careful testing of the patient. The scanning mechanism has three parts (see Figure 2): a pivoting *mirror* (B) between the camera (A) and the text which moves the image from word to word along the line of print; a *table* (C) which moves the book beneath the camera to shift the image from line to line; and a *control box* (D) to actuate the mirror and table. In this case the control box has hand-operated push buttons, but it could be fitted with foot pedals. The control functions are 1) *step forward*—which shifts the image from one word group

The present system

to the following along the same line; 2) *carriage return*—which shifts from the end of a line to the beginning of the following line; 3) *line feed*—which shifts from any position on one line to the same position on the next line; and 4) *left margin*—which returns to the left margin of the same line.

When the text format is regular, as in a novel, the reader needs only two controls, *step forward* and *carriage return*. These present the text as a series of still images, the duration of each being determined by the reader. In normal operation, the reader uses two or three images to scan a line of text. He refers to a fixed position at the left margin of the television screen to find the beginning of each image, thus helping him keep his orientation. The reader may adjust brightness and contrast on the monitor.

□ To obtain data for evaluation of the CCTV system, a total of 17 patients were tested with this model between November 1, 1969, and October 1, 1970. All testing was conducted at the Boston University Hospital Vision Rehabilitation Clinic. Ten of the 17 patients were drawn from the 164 new patients seen during that period at the Clinic. Seven patients were referred directly for evaluation on the CCTV system by the Massachusetts Commission for the Blind. The small number of patients selected from the total population indicates that the CCTV has a limited application even among low vision patients, the majority of whom can be adequately helped by more standard methods. (We would like to caution workers in the field to be sure that persons who are prescribed a CCTV have been adequately examined by a specialist or clinic dealing in visual rehabilitation. A person who is helped by a CCTV reading system may, in fact, be having his first exposure to a good

Regular format works best

17 Users

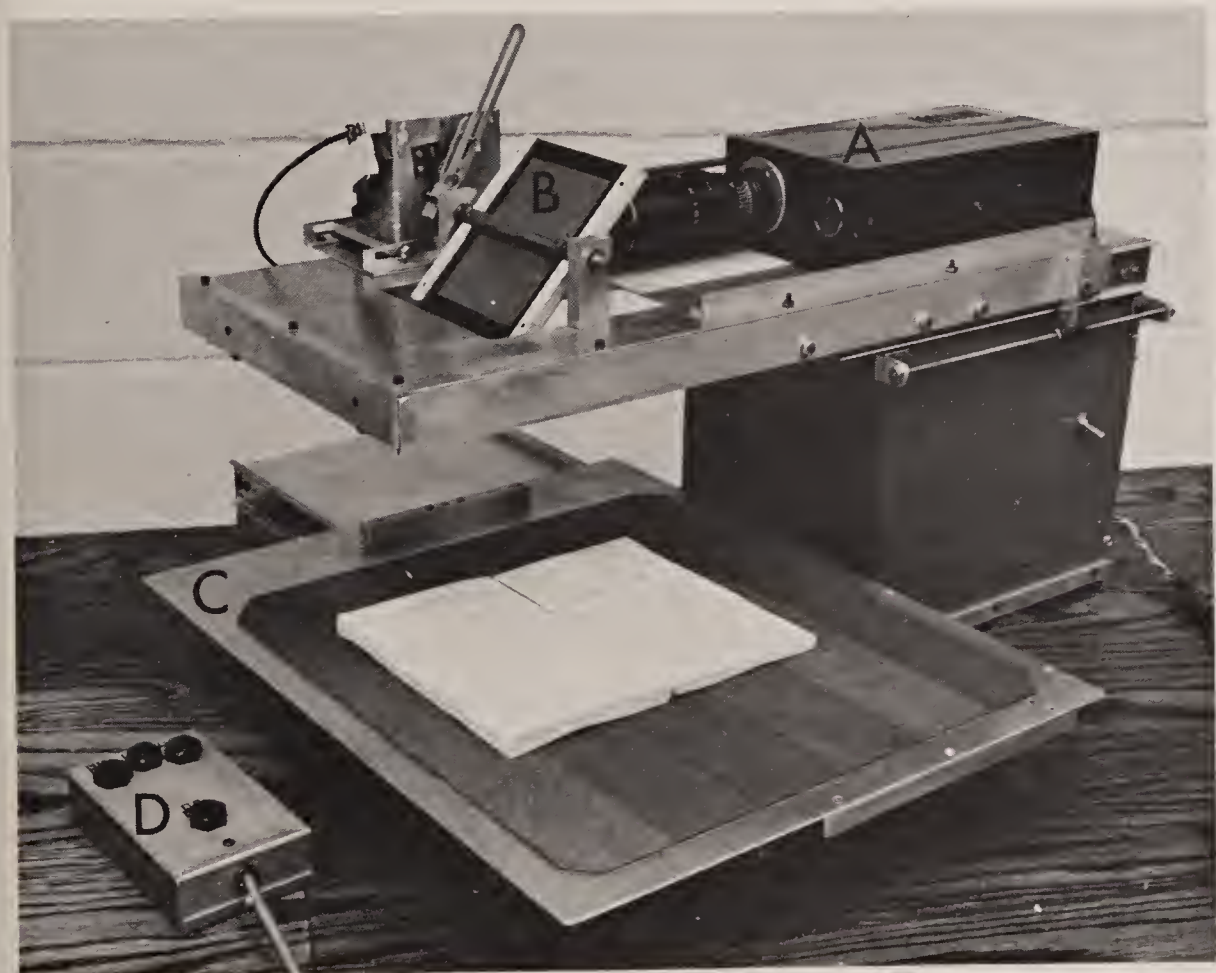


FIGURE 2
The Scanning Mechanism
of the CCTV Reading Aid

low vision device. His acceptance of a CCTV device may be only further evidence that he indeed has useful vision and could be helped by a great number of other devices as well as by proper counseling. The CCTV may not be the only or the best device for this patient.)

☐ The results of our tests are as follows:

1. Of the 17 persons screened, only six have been prescribed a CCTV reading system.

2. The CCTV seems most useful for patients whose best vision is 20/200 or worse. Patients with visual acuity as low as 2/200 have received CCTV prescriptions.

3. All patients whose reading rate improved when using CCTV read less than 70 words per minute when using their best other optical aid.

4. Only one patient with macular degeneration was prescribed a CCTV, and this was because of severe visual loss. Most patients with macular degeneration (because their vision is between 20/200 and 20/400) do well with other optical aids. Two retinitis pigmentosa patients showed improved reading rates; such patients generally do poorly with low vision aids.

5. Two retrolental fibroplasia patients demonstrated high reading rates with other optical aids, but were prescribed CCTV because of greater comfort and reduced body motions when reading. One later dropped out of the program. The second has doubled her reading rate with practice.

6. One patient with pigmentary degeneration of the retina had a small island of vision temporally and had great difficulty using a conventional magnifying device. Frame-mounted devices could not be used because of the eccentric position of his field. He was able to use the CCTV by sitting parallel to the screen so that the island of vision was directed toward it.

☐ Our initial studies indicate that CCTV systems will be important aids for a small percentage of low vision patients. The system we have designed is suitable for extended reading of fixed format texts such as novels. It is, however, inflexible and unsuited to incidental reading. Hand-operated scanning mechanisms are more appropriate for short readings or irregular formats such as graphs and equations. We are attempting to design a hybrid system with both hand-operated and push-button scanning.

Screening and prescription of CCTV will continue with patients from our clinic and referrals. The Massachusetts Commission for the Blind provides CCTV reading systems to rehabilitation clients on prescription from low vision specialists, after consultations with the client, social worker, and prescribing doctor.

The information gathered from the study of these 17 persons is merely considered helpful information in determining what type of patient should be carefully screened for possible prescription of the CCTV system. Obviously, no final judgments can or should be made at this time. Those patients who have been prescribed a CCTV system will have it available in their homes for six- to 12-month trials.

☐ The CCTV reading aid presents a series of word images separated by brief transition intervals. Image shifts are activated by reader-operated push

Results

A special use

Conclusions

Summary

buttons, but are executed by the scanning mechanism in order to maximize the duration of still-image presentation and to minimize transition time. For reading long texts, this scanner is preferred to a hand-operated scanner because of higher reading rates and reduced reader fatigue. However, for some persons this scanning mechanism is too inflexible. A combined system allowing hand operation for short incidental readings and push-button operation for long readings is being designed. Closed-circuit television seems most appropriate for patients with vision of less than 10/200 and as low as 2/200, and for patients whose reading rate with their best other optical aid is less than 70 words per minute.

- Faye, E. E. *The low vision patient*. New York: Grune & Stratton, 1970.
- Fonda, G. *Management of the patient with subnormal vision*. 2d Ed. St. Louis: C. V. Mosby, 1970.
- Genensky, S. M. Some comments on a closed circuit TV system for the visually handicapped. Rand Corporation Publication, December 1968, p. 3984.
- Potts, A. M., Volk, D., & West, S. S. A television reader as a subnormal vision aid. *American Journal of Ophthalmology*, 1959, **47**, 580-581.
- Weed, C. A. Electronic image enlargement for the partially sighted. *Hartford Hospital Bulletin*, 1968, **23**, 64.

Bibliography

Next Month in the New Outlook

The April 1973 issue of the *New Outlook for the Blind* will include the following articles: "Auditory Maps: An Orientation Aid for Visually Handicapped Persons," by Bruce B. Blasch, Richard L. Welsh, and Terry Davidson (University of Pittsburgh); "Making Mobility Meaningful," by Alvin E. Vopata (Iowa Braille and Sight Saving School); "Action on Issues," by Harold Lewis, D.S.W., dean of the School of Social Work, Hunter College of the City University of New York; and "Some Aspects of Welfare Services for the Blind in Japan," by Howard Robson, an English dog guide trainer who spent two years helping to establish a dog guide school and mobility center in Tokyo.

CCTV Reading Machines for Visually Handicapped Persons: A Guide for Selection

ABSTRACT: Closed-circuit television reading machines are now available from several sources, with different models offering a variety of features. Among those criteria to be considered in selecting a device for purchase, the following are suggested as being vitally important: magnification, focus, reversed image, sharpness (brightness), clarity (contrast), movable viewing table, adjustable monitor (distance, height, tilt), portability, accessories, monitor selections, aesthetics, warranty and service, long-term support, and user's manual and instructions.

During the last two years, a variety of closed-circuit television (CCTV) magnifiers which enable many visually handicapped individuals to read effectively have become commercially available. At least 700 such devices, and perhaps more than a thousand, are believed to be in use at the present time. Two companies have been offering such machines throughout the United States since early 1972; a number of other companies have recently begun to offer similar devices, or have been offering them only within a single state, city, or metropolitan area.

□ Many of these CCTV magnifiers, also referred to as "seeing machines," "TV readers," and "electronic visual aids," are being used by individuals on a private basis, although a growing number are also being used in school programs for the visually handicapped, public libraries, retirement homes, and other "shared use" environments where many individuals may use a given machine during the course of a day. However, even those reading machines in private use are often obtained under the sponsorship or prescription of a public agency, such as a state department of rehabilitation, the Veterans Administration, or a low-vision clinic.

The rehabilitation counselor, teacher, administrator, ophthalmologist, optometrist, or similar advisor who may play a major role in advising the use of such a device is often faced with a variety of facts, competing claims and specifications, and occasionally misinformation about the characteristics of such devices, and about how particular features and functions may relate to the needs of his particular client or patient. The purpose of this article is to present information on "what to look for," to relate various equipment capabilities to the needs of various types of patients or clients, and to provide some criteria which will often be useful in evaluating a particular situation and drawing effective conclusions.

□ A CCTV reader consists, at a minimum, of the following components: a closed-circuit TV camera; a lens system (for the camera); a television monitor or broadcast receiver; additional "pieces and parts," mostly mechanical in nature, which may include a mounting stand for the camera, a built-in illuminator, a movable viewing table (for material being read), and a variety of other

LARRY ISRAEL

Mr. Israel is president of Visualtek, a Santa Monica, California, firm which manufactures and distributes devices of the type described in this article.

Present Users

Choosing an aid

CCTV Readers

similar items. These "pieces and parts" generally constitute a major determinant for selection of one device over another, since existing technology tends to dictate a high degree of similarity with respect to the interaction and function of the other items.

Such a device provides the following basic function: magnification of virtually any source material (book, magazine, newspaper, etc.), with enhancement of image clarity, to a degree sufficient for reading by the visually handicapped user. However, that's like saying that an automobile is a motorized vehicle with steering mechanism and seats for the occupants: it's accurate, but far from complete enough. The balance of this article will deal with a number of specific functions and capabilities which can be "designed into" a CCTV reading device, and how the presence (or absence) of each relates to the differing needs of various potential users.

For convenience, the characteristics of a CCTV reading machine can be grouped as follows: 1) user controls affecting the image: magnification (size), focus, reversed images, sharpness (brightness), clarity (contrast); 2) mechanical features directly related to use: movable viewing table, and positioning of the display screen (monotor); 3) miscellaneous features related to scope of use: portability, optional accessories, monitor versus TV receiver, selection of monitors, multiple monitors, and aesthetics; 4) other considerations: warranty and service, long-term support, and documentation.

□ It is of critical importance that the controls or adjustments which the user might be called upon, by his own requirements, to vary relatively often as he is using a CCTV reader, meet the following criteria: (a) locatable by "feel" only—many users will have insufficient vision to see where controls are located, so easy instructions must be provided which allow these controls to be readily located by touch alone; (b) conveniently located—preferably the controls can be reached with a bent arm, from a normal seated position while in use. If a user has to extend his arm to full length to reach a particular adjustment, or has to stand up or otherwise change the "normal" position in which he uses the equipment, its usability from a "human factors" point of view may drop to close to zero; (c) non-interference—by this we mean that the act of making any adjustment should not extraneously interfere with the image. For instance, it is a significant disadvantage if a particular adjustment can be reached only in such a way that the user's reading material (and hence the image itself) is blocked or impaired while the adjustment is being made.

□ There are two important aspects to relative magnification provided by a CCTV reading machine: dynamic variability and range. By dynamic variability, we mean the span of magnifications which can be obtained, directly by user action, in an easy and convenient fashion. Virtually all units available today embody a zoom lens which, with a simple "twist of the wrist," allows magnification to be varied over a fairly wide range, generally 5:1 (the ratio between maximum and minimum magnification). Early experiments with fixed lens arrangements, which require cumbersome and relatively complex procedures to change magnification, were so unsuccessful and poorly received that a zoom lens should be considered essential. One minor note: it is a "nor-

Functions

Characteristics

Image Control

Magnification

mal" property of a zoom lens that, for any given object or image being viewed, it is possible to keep the image in focus over the full span of magnification, if relatively simple adjustment procedures are first followed.

The second major aspect of magnification is the actual range obtained (with any particular monitor), and the ease with which this range can be changed. For instance, if two CCTV readers are equal in all respects except that one provides magnifications of 25x to 5x (a 5:1 ratio) and the other provides magnification of 35x to 7x (also a 5:1 ratio), the second unit is obviously preferable for those users requiring higher magnifications. Most equipment of this type gets around the problem of selecting an optimum magnification range by allowing the range to be varied. However, the methods used to permit this vary significantly from unit to unit, some being relatively easy, while others are more complex. Clearly, the easiest possible method of changing magnification range is the most desirable, especially for "shared use" environments such as a classroom or library, where individual users may wish to select different magnification ranges with relatively high frequency.

□ Obviously, the magnified and sharpened image to be read by a user with a visual impairment must be in focus. However, it is a natural characteristic of short focal distances (generally four to ten inches between the zoom lens and the material being read) that depth of field is relatively shallow (depth of field is the range over which the image will appear to remain in good focus). For instance, if a two-inch thick book is placed under any TV reading machine, the image will temporarily go out of focus, because the distance between the zoom lens and the surface of the material being read has been reduced by two inches (the thickness of the book). It is essential that some means be provided for refocusing the image. The "brute force" approach is to move the lens and camera (which must remain attached to each other) away from the surface of the material. Various systems in use today utilize this approach by allowing the camera/lens assembly to slide, or to be manually moved via loosening a knob and repositioning a part of the unit (after which the knob obviously has to be tightened again). In some cases, the motion is mechanized with a motor. These approaches are generally undesirable because of the difficulty of manual positioning in this way by a visually handicapped user, and the added expense and potential long-term unreliability of added moving parts. A far better approach, on both a conceptual and practical basis, is to perform this focusing function by strictly optical means, i.e., added lens elements. This allows focusing to be accomplished with a "twist of the wrist," in the same way as magnification is changed; and at the same time this approach best meets the general objective outlined above.

□ "Reversed image" refers to the display of a negative or reversed polarity image. For instance, when reading a newspaper or book where the letters are printed in dark ink (usually black) on light paper (usually white or off-white), the reversed-image feature allows the magnified image to show white letters on a black background. Why? There are a number of important reasons: (a) It is substantially easier to read (by the fully-sighted person as well as the partially sighted user). (b) On a CCTV reading machine, white areas

Range of magnification

Focus

Manual vs. optical adjustment

Reversed Image

represent light being emitted from the face of the screen, while dark areas represent the absence of light. It is far better for the partially sighted person's eyes to be sensing letters which are represented by light emitted from the screen (reversed images), rather than the absence of light (which is the case with normal or positive images). (c) The large white area which occurs with positive images (approximately 90-95 percent of the screen in most cases) can cause nausea or fatigue over extended periods of use.

These observations are not universally true; some users indicate a clear preference for positive images, for reasons which have not been fully analyzed. However, over 80 percent of the more than 100 users queried preferred negative or reversed images for most of their work, and almost all users find some use for both types of images (for instance, a positive image is essential for viewing ordinary photographs, and generally preferred for writing).

By the very nature of television technology, brightness and contrast adjustments are provided within the monitor or television receiver. In other words, any television monitor or receiver has brightness and contrast controls, and the only important aspect to look for is the ready accessibility of these controls from the front of the unit.

□ The importance of a movable viewing table should not be underestimated. Because of the high magnifications provided by CCTV reading machines, only a small portion of the material being read (for instance, only a small portion of each line of print in a typical book) will appear on the screen at any given time. It is therefore necessary to move the material being read from side to side, in order to scan across full lines. This is very difficult to do strictly by hand, especially for older users who often will have minor problems in their own motor control. But with a movable viewing table, this movement of the material being read becomes almost trivially easy, as proven in case after case.

A movable viewing table should have at least the following characteristics: (a) A top surface (table area) of at least 12 inches square (slightly larger is slightly better). However, tables substantially larger than this should be avoided, since they can cause other problems such as butting into a nearby monitor (when moved from side to side), butting into the user himself (when the table is moved forward), or being difficult to transport easily. (b) The table should travel smoothly and with minimal friction in two orthogonal directions: side-to-side and back-and-forth. Side-to-side travel should be a minimum of 8½ inches to allow use with single standard sheets of paper (8½" x 11") or relatively large book pages. Optional greater travel can be useful for specialized applications, such as for the visually handicapped computer programmer who wishes to read data-processing print-outs. Back-and-forth travel (front-to-back) should be at least 11 inches to allow use with 8½" x 11" sheets of paper, and optional travel up to 13 inches or so is useful for those who frequently have to read legal-size documents (8½" x 14"). Note that it is not necessary to be able to view the top or bottom half inch or so of such a sheet. (c) The table should incorporate some sort of user-adjustable mechanism which affects the ease of motion in the front-to-back

Positive vs. negative

Brightness and contrast

Movable Viewing Table

Specific features

direction (often referred to as a "brake"). The purpose of this is to produce a noticeable difference in the amount of force required to move the viewing table in this direction, thereby making it substantially easier (as proven by actual experience) to control side-to-side travel on each line.

□ The ease with which any person can read will be influenced by the distance between his eyes and the image being read, as well as by the relative orientation of that image. Three principal factors exist with respect to the relative position of the viewing screen of a CCTV reading machine and the eyes of the reader: distance, height, and tilt. It has been found that selection of the right settings in each of these categories is a highly subjective and individual matter and may depend on a user's state of mind, physical condition (rested or fatigued), and the type of material being read (recreational, educational, occupational, etc.), as well as on his particular visual needs (for example, the user may have only peripheral vision).

The degree to which these factors will be important can only be determined with certainty on a case-by-case basis, but equipment which provides an easy and convenient means of allowing all these adjustments to be made certainly offers better opportunity for successful continuing usage in most cases. Note that the "wrong choice" can mean continual fatigue (which may not be readily observable for quite some time), as well as sore neck and shoulder muscles if the user must hold his head at an uncomfortable angle in order to read effectively. It should also be noted that the relative position of the user and the viewing table is limited by the fact that the user has to move the viewing table (his hands are usually positioned on the front corners of the viewing table). Each user will develop his own comfortable seating position much as does a professional typist in an office environment. Therefore, the position, height, and tilt-angle of the television monitor (the viewing screen) should be independent of the camera/lens portion of the equipment. If these two items are fastened together in some way, the number of individuals who can comfortably utilize the equipment will be substantially lessened, because people differ in their needs as well as in their physical characteristics (a tall lanky person with long arms and a small child with short arms are perhaps extremes for comparison purposes, even without giving effect to different visual needs which they might have or the changes which occur with the passage of time).

□ To some users, the question of portability of a CCTV reading machine will seem unimportant. But in almost every environment imaginable, the inability to easily and conveniently transport this type of equipment has some positive value varying from modest to substantial. For the person using a CCTV reading machine to obtain or retain a job, portability can contribute significantly to an increased sense of privacy and independence. New horizons are sketched out when it becomes possible to use the device both at work and at home, not to mention on extended business or vacation trips. The resource teacher in the classroom or a librarian can generally appreciate the value of being able to move the CCTV reading machine to different locations or even different rooms as circumstances require.

Positioning the Monitor

Importance of proper position

Portability

To be reasonably portable, a CCTV reading machine should possess the following characteristics: (a) It should be light in weight, generally about 30-40 pounds maximum. None of the existing systems meet this criterion for the entire unit, primarily because large-screen television monitors weigh almost this much by themselves. However, it is equally acceptable in most cases if the system can be easily separated into two parts or pieces, each of which by itself is readily portable. This objective is met by systems which have separable monitor and camera/lens portions. Obviously, the lighter the better for each part. (Note that wheeled carts or tables are available from a variety of sources, for modest cost, which can be a convenience in some situations). If the parts weigh less than 30-40 pounds each, they can be placed in a car, brought up and down stairs when necessary, etc., by one person. (b) Each part should have a handle of some type, making it much easier to transport than if it has to be lifted and carried with both hands. (c) Any moving parts (for instance, the moving viewing table) should not slide about, presenting a danger, when the unit is transported.

□ To further increase the user's sense of independence, a variety of useful accessories can often be obtained. It is best to obtain them at the time a CCTV reading machine is initially purchased, if the need can be foreseen. But in any case, what the user wishes to get out of his machine in the future is likely to include an expanded scope of usage. For these reasons, the availability (or lack of availability) of accessories such as the following can be a useful aid to selection, even if their immediate use is not required: (a) A typewriter accessory allows the user to see what he is typing, as it is being typed (that is, while it is still in the typewriter platen), and to make erasures and corrections if necessary. This type of accessory should also be usable with other office equipment such as an adding machine. Make sure that it is fast and easy to switch from "normal" reading to use of the typewriter accessory. (b) Forward viewing, a particularly useful capability in the classroom or office, allows the user to view something six to 15 feet away, such as a blackboard or flip-chart. Again, it is critically important that it be fast and easy to switch from "normal" reading to the use of this optional feature. Incidentally, the author has observed individuals with visual acuity as low as 5/800 who can read ten point type at a distance of seven or eight feet using this type of feature! It may not have to be used frequently, but when it is used, such as by a student to read the teacher's assignments written on the blackboard, it is extremely useful. (c) Margin stops, which function in a manner similar to the "margin set" on a typewriter, allow the user to limit side-to-side travel of the movable viewing table. This feature is especially useful if much reading of newspapers or other material with narrow columns is to be done. (d) A carrying case is not needed in most situations, since the degree of portability previously described, and the uses to which the device will be put, generally will not require special protection for the equipment. But if a carrying case is obtained (and make sure it is heavy duty and can withstand rugged treatment), it can be useful in the following ways: for transport via public conveyance, such as bus, taxi, or plane (make sure that the case will

Weight factor

Optional Accessories

Typewriter viewer

Forward viewing

Margin stops

Carrying case

withstand handling and transport in the baggage compartment aboard a commercial airline; in environments where weather may damage the equipment, if it will ever be transported outside; when the equipment will be frequently transported, such as by a traveling resource teacher who visits many schools during the course of each month.

□ Three considerations having to do with the "image display" in any CCTV reading machine may affect the prospective purchaser's evaluation. First, the question arises of whether to use a television monitor, generally obtained directly from the manufacturer as part of the total system, or to use a television broadcast receiver, of the type which most people have at home. The question tends to arise only in connection with use by an individual at his home, since most agencies, schools, and other institutions will not have a television receiver readily available. A television monitor will definitely give higher quality images (that is one of the reasons it typically costs more) and it is also more reliable over the long haul. However, for those users who do not require the utmost level of clarity in the image they view, and for whom economy is an important factor, this alternative is worth considering. One word of caution: if the television receiver to be used is old and in need of repair, or was a very inexpensive set to begin with, it is probably not worthwhile to consider this alternative.

Monitors

Secondly, concerning the question of monitor size (that is, size of the monitor screen, typically measured diagonally), the larger the screen, the more information will be displayed at any given or desired level of magnification (this is called larger "field of view"). Very few users are happy with anything less than a 16-inch diagonal screen measurement, but very few will find anything larger than 19 inches very satisfactory. As screen size increases, so do weight and overall size (which is generally disadvantageous). Within the range of 16-19-inch diagonal screen sizes, other factors will generally be more important, such as the degree of adjustment provided (refer back to the earlier section on positioning the display screen).

Monitor size

Thirdly, the ability to connect a second and even a third monitor "in parallel" is often very useful. For instance, the teacher of the visually handicapped student may wish to monitor (no pun intended) what the student is viewing, and thereby learn more about the student's ability to use the equipment. The professional specialist in a low vision clinic may similarly want to get a better view of what the patient is seeing, to aid in his analysis and diagnosis. For these purposes, a smaller-screen monitor (about nine inches diagonal) will generally be quite acceptable (just make sure that the vendor from whom you obtain a CCTV reading machine can provide this capability).

Additional monitors

□ Strange as it may seem, the general appearance of a CCTV reading machine can play a significant role in determining whether or not a visually handicapped person will use the equipment to both his and its maximum capabilities. If a unit looks like an ungainly "erector set," the user's pride and his unwillingness to be viewed in an unusual manner by his peers may cause him to reject its use in any semi-public area, such as his office, school, or even in his home in some cases (everybody has visitors from time to time). Don't

Aesthetics

buy a CCTV reading machine just because it's pretty, but do insist that it be aesthetically designed, without compromising its functional requirements. The discriminating purchaser can obtain desired functions *and* satisfactory aesthetic balance without compromising either objective.

☐ A one-year 100 percent warranty, covering both parts and labor, has become largely standard among suppliers of CCTV reading systems, although there may be a few "hold-outs." There is enough choice (among competing suppliers) to insist on this and not accept anything less. Make sure that everything is covered, including the camera vidicon tube and the monitor picture tube (but not expendable items like fuses and bulbs). Do not expect on-call service unless you are located in reasonable proximity to a representative of the manufacturer. This type of equipment can be expected to be highly reliable, and should require minimal service for the first three to five years. However, nobody can guarantee the perfect performance of every unit they build—and discredit the vendor who promises you that he can. A useful check: ask the vendors in whom you are interested to provide the names and addresses not only of satisfied users, but also the names and addresses of users who have required service of one sort or another. Find out directly what such customers think of the service and support they have received.

☐ The longevity and experience of a supplier is, by itself, not necessarily a significant reason to buy or not to buy from him. However, there are other ways to evaluate the commitment of a supplier of CCTV reading machines to his customers and prospective customers. (After all, if you purchase a machine and, three years thereafter, something goes wrong, you don't want to call a recording which says "That number has been disconnected.") Each prospective purchaser must, of course, perform this evaluation for himself. The following areas might be considered useful to evaluate: the scope of distribution activities of the supplier (national, or just local in one narrow area?); advertising (the supplier who does no advertising may be interested in selling only on an opportunistic basis, and may eventually decide it is not worth the effort); the degree to which "off the shelf" pieces and parts are used (these may not be well adapted to the requirements of a CCTV reading machine, but do let the supplier "get away cheap"); the nature of the supplier's production facility (if you are at all close to it, ask for a tour), the number of demonstration units the supplier has available in different parts of the country; the quality and capability of the supplier's representatives (you may eventually depend more on them than on the supplier directly); and other similar factors which do not necessarily fit into any specific pattern based on the age and experience of the supplier.

☐ How good is the supplier's documentation, particularly regarding instructions for use? An expensive CCTV reading machine may just gather dust, after a while, if you do not have available a complete and comprehensive set of instructions for use. There is an easy way to check for yourself: ask the supplier (before you buy!) for a copy of his "user's manual," or similar document. Most manufacturers should be willing to send you one at no charge, but if you want to be completely fair, include a dollar to cover his costs.

Warranty and Service

Long-Term Support

Evaluation

Documentation

What about the possibility of purchasing commercially available components and assembling a CCTV reader yourself? This has been done by some, often at savings of \$500 or more in materials. However, it is risky in the sense that the result may be unusable or unsatisfactory, it generally requires that "the wheel be re-invented," and in any case it is unlikely to produce the same high level of benefits and quality obtainable from most commercial units. We know of a number of persons who have done this and been moderately well satisfied with the result, but we also know of many who are quite dissatisfied and cannot use the "jerry-rigged" equipment which they constructed. Unfortunately, with limited budgets or financial resources, it is not always possible to correct this kind of error once it has been made.

□ There seems little doubt that CCTV reading machines provide valuable and much-needed benefits to (potentially) large numbers of blind individuals who have even a modest amount of residual vision. Their use can be expected to continue to grow, especially in "shared-use" environments such as schools, libraries, retirement communities, etc., as well as in the homes and offices of private individuals. Although the expense of such devices can be expected to be lowered somewhat as time passes and production quantities increase, we can also expect to see increased subsidization of the purchase of such devices for private use and to permit gainful employment, by such agencies as state departments of rehabilitation, the Veterans Administration, and various other non-profit agencies and organizations. As with any other new device, the initial period of production and availability presents the prospective purchaser with a wide variety of often conflicting claims and counterclaims, but the next two or three years should produce a "settling out" of desired specifications and characteristics. Even so, the process of evaluation and selection of a CCTV reading machine becomes progressively easier as more and more of those involved with services to the blind become aware not only of the general capabilities of such equipment, but also of the relative merits of the equipment offered by various suppliers.

Do-it-yourself?

Conclusions

Editor's Note: For more information about closed-circuit television reading systems, see the bibliography and list of manufacturers in the "From the Field" department of this issue.

Helping Blind Persons to Find and Prepare for Employment

ABSTRACT: Four kinds of job market surveys are recommended for discovering possible occupations for blind persons. The role of schools in promoting the success of blind youngsters when they enter the job market is fully discussed. Where schools fail, many countries start intermediary centers to prepare blind young people for the world of work. The role of the placement officer is emphasized as are the roles of agencies and government. Examples in each area are drawn from many countries around the world. Based on a speech given to a biennial conference of agencies and schools for the blind in France.

Today blind persons work in thousands of different occupations, yet the percentage of blind people who work is fairly low. There is a great need to open new occupations to blind persons, particularly in open industry. Some rather interesting methods have proved to be successful in various countries.

1. By surveying the market, one can ascertain the jobs in which there is already an oversupply of trained workers. Schools and rehabilitation centers which serve blind persons can make known the facts to them so that large numbers of blind persons do not try to enter those overpopulated fields. For example, in India there are far too many trained lawyers, and large numbers of them obtain work only in other jobs such as general office work. It would be foolish to train many blind lawyers under such conditions. In Greece there are too many telephone operators, and trained blind operators, therefore, often wait years to obtain work. Hence, counseling of blind persons about general working conditions within a country can be a helpful service to them. Such information is usually readily available from the ministry of labor, technical schools, training colleges, and universities.

2. When there are occupations known to have a scarcity of workers, it has been possible to arrange special training programs for blind persons for those fields. One recent example was a program to train blind interpreters in the Chinese and Russian languages for jobs in international organizations. Another example was a program to train blind persons as tax experts. It has also been possible to enroll blind persons in training programs with the sighted for new occupations such as the recent efforts to train computer programmers.

3. A comparatively new idea, and one which is working very well, is to have a committee of persons make a careful study of a particular industry to determine which occupations within that industry might be suitable for blind persons. Such studies are valuable only if they are followed up by the training and placement of blind workers in some of those jobs. Tunisia looked at

JEANNE R. KENMORE, Ph.D.

Dr. Kenmore is director of the Europe-Northwest Africa Regional Office, American Foundation for Overseas Blind, Paris. She is also chairman of the International Council for Education of the Visually Handicapped.

General market surveys

Special training programs

Industry studies

This article is based on a paper originally presented at the V^e Congres National pour la Promotion Sociale des Aveugles (Fifth National Conference for the Social Promotion of the Blind), Limoges, France, June 1971.

its tobacco industry to identify jobs that blind workers could do and then workers were actually trained and placed in tobacco factories. In the United States a committee studied the occupations within a hospital to determine which of over 200 job classifications could be handled by blind persons. Similar surveys have been done of the occupations within the restaurant and hotel industries and in recreation services.

4. Another way of finding employment is to survey the possibilities within one company and then train blind workers for specific jobs there. In Malaysia a factory which manufactures door locks was studied and blind workers who learned to perform certain jobs at the speed of sighted workers were given regular employment. An unusual example is one particular sheltered workshop in Denmark where mentally retarded, blind adults were trained to handle specific tasks that are done in two nearby factories which manufacture toys and women's hair curlers. Within the sheltered workshop, the trainees learn other things besides the job itself: they learn to travel, how to manage money, how to live independently in apartments, how to dress and eat properly, and the general responsibilities of a working member of the community. As soon as a trainee can do his job well and with at least 50 percent of the speed of sighted employees, he is then given experience in the factory at 50 percent of a full salary. As his speed increases, his salary increases in direct proportion. Supervision from the sheltered workshop continues until the retarded, blind adult can manage his life alone.

☐ It would seem to be important to remember that blind persons are as different from each other as sighted persons are different one from another. When a successful avenue of employment has been found, the temptation to steer large numbers of blind persons in that particular direction should be resisted. In one European country, 50 percent of all the blind people who work are in the same occupation; i.e., telephone operators. The job of telephone operator is a good one, of course; but one wonders whether or not some of the blind people who were guided into that occupation might not have had other interests and talents which could have been developed.

The goal of the present and the future should be to recognize early the individuality of each young blind person and to educate him well enough that he will be able to enter the field of his choice rather than one chosen for him.

Three years ago at a conference held in the United States, some highly successful blind men were asked what had helped them obtain and keep their jobs. All of them were in occupations not usually recommended for the blind. There was a journalist, a radio announcer, an electrical engineer, a building contractor, a minister, a geologist, and a research chemist. They agreed upon three factors which had contributed to their personal success: 1) absolute physical independence, the ability to travel efficiently wherever they had to go; 2) social behavior which was appropriate for the society in which they lived and worked; and 3) better than average training in their chosen professions. Possibly these factors are important for nearly all blind persons.

☐ Let us look for a moment at the responsibilities of the schools and centers which educate young blind people. Today the modern school for blind chil-

Company studies

Avoid Saturation of an Occupation

Qualities for success

Responsibilities of Schools

dren begins to teach even the very young the habits and skills which will be important to them later as workers in a great variety of occupations. The philosophy of education of the blind has long included instruction in independence and social skills, but the practice has been far behind the philosophy. In reality, most young blind people today leave school with a very low degree of independence. One rarely finds congenitally blind adolescents who use their bodies efficiently and gracefully, and who dress, eat, and behave according to accepted social patterns.

It would seem that to help open future occupations for their students, schools for the blind should prepare their pupils by teaching them mobility, daily living skills, habits of organization of materials and time, and social graces, as well as school subjects. Two schools which do an outstanding job of this are Refsnaesskolen in Kalundborg, Denmark, and Bartimeus School in Zeist, Holland.

Schools for blind youth should also prepare their pupils for what will happen when they leave school by counseling them about opportunities for training and jobs and by helping them understand their own abilities and deficiencies. Schools should cooperate with representatives from organizations serving adult blind persons in helping each young person leaving school to design a plan for his future.

When schools have done a good job in all their responsibilities, then pupils with average or better ability should be ready to advance directly into technical schools for the sighted, training colleges for teachers, or universities. When schools have not fulfilled their obligations, even pupils with good ability must go to some center for the blind to learn what they should have learned in school: mobility, advanced braille, typing for personal use, daily living skills, even elementary arithmetic and management of personal income.

□ Some countries have found the schools for the blind so resistant to change, so resistant to the idea of preparing their graduates for their future, that intermediary centers have had to be established. In such a center, blind youths with different levels of ability are given instruction according to their needs. The student who will go to a university or a teacher training college is given a period of training, two to six months, in personal typing, note-taking, study habits, how to work with a sighted reader, how to get materials on tape, how to use tapes to study, how to take various kinds of examinations usually given the sighted, etc. After such concentrated preparation, the blind student entering a university has a better chance of succeeding.

In the intermediary center, young people who will enter training centers to learn technical jobs, can be evaluated by means of various standardized tests and personal interviews to determine their interests and capabilities. Then they can be given a few months pre-training for the occupation of their choice. For example, a young man who wishes to work in light engineering in a factory could be taught about all the possible measuring devices adapted for the blind and the ones not adapted, about simple hand tools and basic machinery, as well as mobility and personal living skills.

Less intelligent and multiply handicapped youths can go through a period

Preparation for world of work

Further training

Intermediary Centers

Pre-training

of assessment to determine the possible occupations they might enter and through which kinds of training centers. They, too, will need instruction in independence and self care.

□ The countries with the greatest success in opening occupations for blind persons have found placement officers indispensable. There should be at least one attached to every intermediary center, and his role is largely to get blind youths accepted into training programs for the sighted. An illustration of what such a person does can be found in a country in the Middle East where a new intermediary center has been operating just one year. The placement officer has successfully placed the first ten trainees who finished their time at the center. All have been accepted into either technical training schools for the sighted where they will learn specific jobs, or directly into open industry. An important part of the role of this particular placement officer has been to follow-up each placement and help solve the early problems of either the blind persons or their employers or instructors. There should also be at least one such person attached to every rehabilitation center which has a program of job training. England and Germany, which are so successful in obtaining jobs for blind persons, consider placement officers the key personnel in their training programs.

□ One largely unused source of further education for blind youths is the great number of technical schools for the sighted. Rather than directing the vast majority of the young into a few selected occupations, we should enlarge the variety of professions they might enter by enlisting the aid of general technical schools. Not possible? The technical schools will not accept blind youth? Well, they have and they do in several countries. In Dacca, Bangladesh, for example, a technical school for the sighted offers 18 broad categories of training. It was found by a placement officer that half of those categories could be learned by blind persons, most with no adaptations at all.

In order to enroll a blind person in such a school, certain conditions must be met: there must be a placement officer or someone responsible for answering the questions of both the instructors and the blind trainee during the early part of the training; and the blind candidate placed in the school must be acceptable in terms of independence, appearance, habits, etc.

Some blind persons with advanced education have entered their professions fairly smoothly. I am personally acquainted with blind persons who are social workers; lawyers; psychiatrists; university professors of mathematics, history, economics, sociology, and theoretical physics; teachers of sighted children at all levels of primary and secondary education and in many subjects; electrical engineers; administrators of large industries such as an airport, a television station, and an automobile factory; and psychologists. Some of them were congenitally blind, some became blind in adulthood. All of them found individual ways to make whatever adaptations and adjustments were necessary to be successful in their work.

But many blind persons with advanced training have not been able to enter the kinds of jobs they wanted. Often the blind person does not realize that it is not so much his blindness as his own functioning as a blind person which is at fault. It is unfortunate but true that prospective employers usually

Placement Officers

Technical Schools

Qualifications

Employment possibilities

Personal dysfunctions

judge the potential of a blind applicant largely by how he looks, how he walks, how he does very ordinary things.

Sometimes it is necessary to have a law changed to permit blind persons to enter certain professions. This was true in California where an old law stated that a teacher in the ordinary public schools must be healthy and free of physical handicaps. The changing of the law opened a new profession for qualified blind persons.

□ The importance of public education concerning the abilities of blind people cannot be overemphasized. Public relations efforts in a few countries have made a tremendous difference in the opportunities afforded blind people for admission to training programs and for jobs. To have public attitudes formed as we would like, there needs to be constant propaganda, constant attention drawn to the fact that blind people can and do lead normal lives.

Attractively printed pamphlets with pictures and concise information, frequent newspaper stories about blind people's lives, meetings at which executives who have been pleased with blind workers are introduced to other prospective employers, and very frequent but short television programs—all these public information efforts have helped open doors to employment.

□ As a traveler in many countries, I have noticed one thing which seems to be unique in France. It is only in this country that I have seen along the highways the sign, "Toutes Directions," indicating that if you follow that sign, you can take all the directions at once. Of course I understand its real meaning; but the sign never fails to suggest to me other, more subtle possibilities. In the attempt to open more occupations for blind persons, it would seem that we must indeed go in all directions at once.

Growth of opportunities for blind persons takes place most rapidly when there is national effort along certain lines. Government leadership is indispensable in the matters of improved legislation for the blind, in opening particular industries such as civil service jobs, and in providing equal opportunities for materials and books for blind children and students. A national library of taped textbooks and literature at all levels would be an invaluable aid for the education of blind youth and for the blind workers who have need of professional and technical literature.

Efforts to train teachers for schools for the blind, to modernize the instruction, and to add programs of counseling can make a difference in the caliber of blind youth who enter the labor market. Analyses of certain industries to find possible jobs for blind people and of the labor market to find occupations where not enough trained workers are available can yield rich results. It is evident, however, that the greatest source of opportunities will come through an individualization of our counseling and placement services so that blind people, like the sighted, may be freer to develop their individual abilities and follow their particular interests.

□ Lastly, and constantly, we must do our best to educate the public about the rights and the abilities of blind persons. The efforts must come from many sources: national, local, governmental, and private. And all of us who wish to help blind persons must see that our practices fit our very fine philosophies.

Public Education

Expansion of Opportunities

Updating the schools

A Final Word

Jogging and the Blind Veteran

ABSTRACT: A discussion of the introduction of jogging as a recreational activity at the V.A. Blind Rehabilitation Center at West Haven, Connecticut. The specific, easy-to-learn techniques to be used by a sighted person acting as guide for a blind jogger are explained. Jogging is shown to be a practical, inexpensive activity that should be available to those blind persons who might be interested in it.

The Eastern Blind Rehabilitation Center for blind veterans at the Veterans Administration Hospital, West Haven, Connecticut, recently offered jogging as one of the activities of its recreational and physical education program. To offer jogging, an activity in which only a few blind veterans would be interested or physically able to participate, might seem impractical, but it was not meant to revolutionize recreation for all blind veterans or blind persons. We felt that any successful recreational program for the blind veteran should be adaptable to his particular needs or interests, and be practical, inexpensive, and easily transferable to the home situation and community. Jogging fit this description for some of the younger veterans in the center, and even a few older ones. Many of the recreational activities for blind adults today do not meet the above criteria, and many recreational programs force blind persons to adapt to the activities offered, regardless of their interest and motivation.

□ The blind veterans were approached with the idea of jogging and five of the 20 patients at the Center displayed an interest. (Groups of 20 patients stay at the Center for an average of 18 weeks.) Two lost interest immediately, but three of the veterans continued jogging after their afternoon classes on Monday and Wednesday until their discharge from the Center. The three were a 22-year-old Vietnam veteran with light perception, a 65-year-old partially sighted former boxer, and a 43-year-old totally blind business man. The business man recently returned to the Center for a visit; he is still jogging a mile every afternoon with his wife acting as a guide.

□ Two orientation and mobility specialists in the Center, Mary Dolan and the author, were interested in jogging and acted as guides. After experimentation, the following techniques were found to be best for a sighted person jogging with a blind person.

1. The traditional sighted guide technique is not used as it puts too much strain on the guide and does not permit a normal running gait for either the guide or the blind jogger.

2. The long cane is used as follows: the guide grips the cane with both hands (either near the crook or the tip end), and holds the cane perpendicular to his body, chest high, with elbows flexed at approximately a 90-degree angle. The blind jogger grips the other end in the same manner. (See Figure 1.) To run with

RICHARD W. WEBSTER

Mr. Webster, formerly an orientation and mobility instructor at the Eastern Blind Rehabilitation Center, Veterans Administration Hospital, West Haven, Connecticut, is presently a vision consultant with the Illinois State Department of Public Health, Springfield.

Three Joggers

Guidelines and Techniques



FIGURE 1

Rose De Maio, a secretary at the Eastern Blind Rehabilitation Center, jogs around the parking lot with Roger Kines, a blind veteran, using a long cane to guide him. Maurice Toler, also a blind veteran, awaits his turn.

two blind joggers, the guide can grip the cane in the middle and position the joggers on each side of him.

3. The partially sighted jogger may follow the movement of the guide by jogging close behind, without the use of the cane.

4. The guide and jogger using the cane run in step; the natural arm swing of jogging can be obtained if each person releases one hand from the cane.

5. The guide can give the blind jogger the following signals with the cane: a) when the guide lowers one end of the cane and raises the other (termed "banking"), a curve is to be negotiated in the direction of the lowered end of the cane (the degree of bank indicates the sharpness of the curve); b) returning the cane to the original position indicates that the curve has been negotiated; c) when the guide raises the cane parallel to the ground and to shoulder height, an incline is to be negotiated; d) lowering the cane to waist level signals an approaching decline.

6. On straight stretches of running area, the guide and jogger should grip the cane with one hand only; on curves, two hands should be used.

7. The best area for jogging is a smooth flat surface which best allows the blind jogger to interpret the guide's movements. (We use a large parking lot; a track would be perfect.)

□ The time and distance jogged were regulated by the veteran's physical condition. Since the program's beginning, we have added two more jogging enthusiasts, two totally blind young Vietnam-era veterans. One, who is 25 years old and who loved to run before being blinded, jogs until the guides are tired; in contrast, the 65-year-old boxer started by jogging 100 yards and walking 100. All veterans admitted to the Center are examined by its physician and medically cleared for participation in physical education and recreational activities. Any-

Signals

Physical Condition

one who is interested in starting jogging on his own, therefore, should first check with his family physician.

□ The participating blind veterans have enjoyed jogging and in every group of 20 patients, there are always several who request it. We encourage the activity, but never force it on anyone, since we only want those who are interested. Jogging does not require any special apparatus for blind persons to participate, except a guide who may be the spouse, other family member, friend, or neighbor. Jogging does not cost anything, is good exercise, and can be easily transferred to the home community if it is begun in a rehabilitation center.

The avid participant who wishes to continue jogging and who perhaps needs a jogging partner of similar running ability can contact the local chapter of the National Jogging Association in his area. The local YMCA is another excellent source of partners. Jogging is certainly not the all-encompassing solution to the recreational needs of blind persons nor is it likely that a large percentage of the blind population would ever be interested. Jogging at the Eastern Blind Rehabilitation Center was an attempt to fulfill certain individual needs of the blind veterans there.

The initial response from some blind veterans when asked if they would like to jog was a shrug of the shoulders that seemed to say, "I'm blind and can't be expected to jog; and if I could, I wouldn't have the time." All it really takes is enough ambition to step out the front door, an interested partner, and 15 minutes a day.

Advantages of Jogging

Partners

Haptic Intelligence Scale for Adult Blind

Dr. Phil S. Shurrager, chairman of the Department of Psychology and Education, Illinois Institute of Technology (Chicago, Illinois 60616), has announced that the Haptic Intelligence Scale for Adult Blind (HISab) is to be made available by the Stoelting Company. The test, which was originally developed and standardized at IIT, has not been available for about two years. The company is to produce 50 kits for its initial offering and estimates the cost per kit at about \$300.

Sensory Stimulation: Two Papers

Editor's Note: In the following two papers, Robert Carolan discusses the importance of sensory stimulation, first in the early life of the blind infant and then in the declining years of the blind older person. Not providing the individual with adequate sensory input at either of these two extremes, both of which involve those who are to a certain extent dependent on the intervention of other persons to alleviate their environmental deficiencies, can have serious consequences.

ROBERT H. CAROLAN

Mr. Carolan is regional consultant for the New England states, New York, and New Jersey with the American Foundation for the Blind, New York City.

Sensory Stimulation and the Blind Infant

ABSTRACT: To develop properly, it is necessary for the infant, and particularly the infant who is blind, to be provided with a rich environment of sensory stimulation. When such stimulation is absent, as evidenced by the findings of researchers in sensory deprivation, a variety of undesirable behaviors can result. Parents can be helped in a variety of ways to provide their child with adequate stimulation. The concept of an infant curriculum, as developed by Barsch, is suggested as a particularly useful means of insuring that appropriate kinds and amounts of sensory stimulation are provided at each developmental stage.

A rich environment of varying sensory and perceptual stimulation is a crucial need for the blind infant in order for him to progress through the appropriate developmental stages which are the *sine qua non* foundations for his physical, psychological, social, and intellectual fulfillment as an adult. The conviction that this need has a top priority in delivering services to blind persons led the writer to review some of the literature on sensory deprivation, developmental studies and programs, the blind infant, and the pre-school blind child. The conclusions drawn from this reading and reflection are that to provide a rich environment of varying stimulation it is necessary to insure that 1) the parents, and especially the mother, have warm, affectionate, positive attitudes toward the child, but with a realistic appreciation of his limitations; 2) a curriculum of sensory input be established; and 3) an infant instructor assist the parents, and especially the mother, to meet the developmental needs of the blind infant and the pre-school child.

The writer, because of his background and work, chose the blind infant in order to concentrate his effort and have it relate to his professional endeavors. However, this conviction and the conclusions from reading could be applied, *mutatis mutandis*, to other sensorily deprived infants and children.

Stimulation Is Crucial

□ Knowledge gained in the field of sensory deprivation has many implications for understanding the sensorily impaired child, as the following quotations reveal.

Sensory Deprivation

In attempting to understand the function of the central nervous system in the light of psychological and physiological experimental results, Hebb, in *The Organization of Behavior*, proposed a conception of the central nervous system function at some variance with traditional notions. He set out to develop a theoretical neurophysiological model that would be congruent with psychological facts and would take account of the central direction of behavior. . . . While he acknowledged the role of innate or unlearned determinants of perception, Hebb tried to show that even "simple" perceptions are in fact complex: ". . . they are additive, . . . they depend partly on motor activity, and their apparent simplicity is only the end result of a long learning process."

In developing this theory he stressed the importance and distinct quality of early learning and experience and referred extensively to the work of Senden and Riesen showing the effects on perceptual behavior of deprivation of visual experience early in the life of the organism. . . . These findings stressed the total field of brain activity with its neuronal networks, reverberating circuits, and feedback mechanisms, as well as the probabilistic nature of its functioning.

Early experiences

As part of the elaboration of his theoretical formulation Hebb specifically considered the effects of monotony on learned behavior. He suggested that monotonous sensory stimulation produces a disruption of the capacity to learn, or even to think, through interference with "phase sequence" functioning. In these terms new combinations of cell assemblies are continually necessary to maintain the phase sequence and a normal level of excitability. The nature and patterning of sensory stimulation is thus stressed and it is pointed out that in the absence of varied stimulation, brain function becomes less efficient (Solomon, Kubzansky, Leiderman, Mendelson, Trumball, & Wexler, 1961, pp. 2-3).

Effects of monotony

□ Cobb relates such behaviors as "blindisms" to phenomena seen after experimental deprivation. "For example, the symptoms of the deprived child with 'atypical' and 'autistic' reactions are without doubt related to phenomena seen in adults after experimental sensory deprivation" (1965, p. xviii). Bruner writes that

Blindisms

early sensory deprivation prevents the formation of adequate models and strategies for dealing with the environment and that later sensory deprivation in normal adults disrupts the vital evaluation process by which one constantly monitors and corrects the models and strategies one has learned to employ in dealing with the environment (1965, p. 207).

Lowenfeld even questions the term "blindism," since many seeing children also show these and similar behavior patterns. He says, "It can easily be understood that a child who does not get enough impressions from the outside world will turn to his own body for stimulation and will continue to do this if he finds it satisfactory or pleasurable" (1971, p. 102).

Questioning the term

It is clear from the foregoing references on sensory deprivation and from reading on the subject that the organism to develop fully must have an interchange with his environment by way of rich and varied stimulation. This stimulation must not be forced, and should be appropriate to the develop-

mental stage of the infant. This must occur at a time in life when a child learns much more and more rapidly than perhaps at any other stage of his development.

□ Perhaps the most important person in the child's development is his mother or the mothering figure. In the light of this, the writer reviewed some of the literature on parental attitudes and the influences of parents on the variety of sensory input. Tait says:

. . . mastery of the environment, which appears to be a source of trouble for the blind infant, can only be obtained by spontaneous exploration of the environment. The willingness to explore the environment can only be accomplished if there is a secure mother-child relationship. The relationship between the child and his mother is complex. In addition to identified behavior patterns of rejection of the blind child by the mother, more subtle forms of behavior may, unknowingly on the part of the mother, be interpreted by the child in such a way that the end product is similar to that of rejection. This rejection, or seeming rejection, may result in anti-exploratory behavior (stereotyped rhythms or blindisms) which may be an active regression to the safety of the blind child's own world. This anti-exploratory behavior is, therefore, substituted for, or at least interferes with the utilization of that behavior which would ordinarily lead to mastery of the environment and a reduction of the fear of the unknown.

. . . a simplistic view of blindness and of rejection by the mother of a blind child is not conducive to the development of desirable behavior changes. The key to the formulation of a specific plan of action by which the mother can more effectively cope with the problems inherent in raising a blind child in a visually oriented world may be found in a depth analysis of mothering patterns (1972, p. 149).

Di Leo says concerning feeding:

Efficiency without joy provides food and hygiene but no gratification. The human infant needs more. He will develop his fullest powers only in an atmosphere of reciprocal gratification in which he absorbs the pleasure that his mother feels in giving of herself. But only a mature woman can enjoy giving of herself, watching him grow and develop. Feeding is the basic relationship that is established between mother and child. Upon this experience will be structured the future social relationships of the child (1970).

Moor says that the blind pre-schooler "thrives on love and being picked up, cuddled and praised for his accomplishments" (1948, p. 241). Lowenfeld, speaking on the effects of deprivation of maternal care, says, ". . . it may lead to emotional and intellectual retardation and even show adverse effects on the physical growth of the child" (1953, p. 6). Beers indicates that the early months of an infant's life are of the utmost importance. She says, "He needs to have his physical world shaped around him. Much research needs to be done on stimuli for the very young blind baby" (1958, p. 218). In quoting Altman she points out that at this stage of life the roots of passivity take form: "The foundation is thereby laid, not only for general passivity, but also for the most essential difference between the blind and seeing child" (Altman, 1931, p. 27).

Importance of the Mother

Feeding

Body contact

□ Cerulli and Shugerman, writing on how to help the parents, say:

Advice to Parents

we feel that the blind child should be treated as a normal child with the awareness of the handicap, so that special provisions can be made to permit normal maturational development. We feel that no progress can be achieved, either in early infancy or in the age group of our children unless the parents are given specific, concrete suggestions with respect to helping their children learn about the environment. In the last analysis, it is the parents who have the most influence in the child's life. Without the foregoing, he will vegetate (1961, p. 297).

Norris adds:

At the outset let me stress that we have found that blindness in and of itself is not the determining factor in the child's development. Rather, failure on the part of adults to know what to expect of a blind child or how to encourage his optimal development creates the problem (1956, p. 263).

In reading other articles on the development of the blind child and searching through some books on the subject, there seemed to be much written that describes the problem of the blind child entering school. Very often the need of the teachers to have children who can understand their concepts was most evident. Regarding this, Pittman says, "The most surprising discovery made during this exploratory study was the dearth of material readily available to parents, teachers, and house parents giving specifics on how to teach the blind child table manners" (1964, p. 267). This seems to be true in all areas dealing with the development of the blind infant.

The teacher's role

□ Lowenfeld's book, *Our Blind Children* (1971), is perhaps the best single title concerning itself with specific problems and solutions in the development of the blind infant. This book should be a resource book for parents, pediatricians, and others whose work involves blind infants and their development. The style is conversational and he considers the problem in all its dimensions by emphasizing the need for a warm, affectionate, and realistic attitude of the parents, especially the mother, and the needs of the child to develop in a normal manner, going through appropriate stages without undue pressure or tension. This book is replete with practical suggestions for various developmental stages respecting the restrictions due to blindness.

"Our Blind Children"

Another article which would be very helpful to the parents of a blind infant is *Toilet Habits: Suggestions for Training a Blind Child*, by Pauline Moor (1952). The author is most helpful because she is clear and specific. It seems that there are not enough people in the field of education of exceptional children who can leave the heights of what is abstract. It seems that they fear making some concrete suggestions. However, the need for such suggestions is most evident.

"Toilet Habits"

□ "When parents give loving care, normal discipline and understanding encouragement, the result is happiness and good adjustment even though the child is blind," writes Joanne Heckman (1955), then a student at the School of Nursing, Yale University. This article is most perceptive and demonstrates the common modality of many deprivations as they affect the sensory input; it would be a source of great encouragement to the parents of a blind

Role of Pediatrician

infant and would give them many practical directions. Noteworthy in it is the observation that the pediatrician is a key figure in the management of the family health situation, he must coordinate the interdisciplinary approach to the series of crises precipitated by the birth of the blind infant. He is instrumental in resolving attitudinal problems by putting the family in touch with other parents who have successfully coped with the same problem and encouraging them to obtain professional help as well.

To tell the parents that their baby is blind is a most difficult task. However, when the prognosis is established, the doctor should face this responsibility and disclose the situation to the parents. To procrastinate, as has often happened, is most unfair to the child and his parents. It certainly could indicate a denial mechanism at work in the doctor. By a compassionate discussion with the parents much could be done to help them meet the crisis and to assist them in providing a wide range of meaningful sensory input for their baby. Moor suggests that the doctor should know that the shocking news will stun the parents to silence. He should respond to their needs by giving them opportunities to ask questions and even make other opportunities for them to come and talk with him (1954).

The need for a variety of meaningful stimulation for the blind infant has become apparent through the foregoing discussion. In order to develop properly the blind infant must go through the developmental stages in the most optimal manner. His lack of vision is a major restriction on his sensory and perceptual reception. However, his development need not be arrested or irreparably curtailed. What needs to be given him at the appropriate levels is a rich experience in other sensory input. This input must be given in a way which makes efficient use of the affective capability of the mother in a realistic manner. "Optimum development can only be realized in the atmosphere of a mutually gratifying mother-child relationship" (DiLeo, 1967).

□ To accomplish the goal of giving the child a rich variety of appropriate sensory stimulation, the concept of an infant curriculum, as suggested by Barsch (1967), should be employed. He defines a curriculum as follows, "A curriculum, in its simplest form, is a planned sequence of events, activities, and experiences occurring in a prescribed time period intentionally organized and implemented to achieve a desired result." Thus, the optimum appropriate sensory input could be planned for the appropriate developmental stage by the pediatrician. He would make a developmental evaluation, such as explained by DiLeo in "Developmental Evaluation of Very Young Infants" (1967) and would then prescribe the curriculum that would meet the needs of the blind infant.

The teacher who would implement the curriculum is the parent. This concept is most natural. However, it does place new demands and schedules on the mother. Consequently, there is need for someone else to support and advise the mother. This person should be well versed in infant and child care and also have special knowledge relating to the particular impairment of blindness. In some instances nurses have done this work in such areas as vestibular stimulation and in programs of exercise and positioning in the motor

Telling the parents

Variety of stimulation

Infant Curriculum

Parent as teacher

development of infants (Koch & Dobson, 1971). Barsch (1967) calls this person the "infant instructor." Her function would be to help the parents implement the desired curriculum; to plan specific sequences of sensory stimulation; to monitor the tolerance threshold of both the mother and the child so that the mutually gratifying nature of the experience is maintained.

The infant curriculum and the infant instructor may best come from such a setting as a university medical center. The pediatrician would manage the needs of the child and make use of an inter-disciplinary approach. The parochial limitations of categorical disciplines could be avoided by making use of such a center. The curricula would be richer in the carry-over from one deprivation to another. Parmelee supports this:

University medical center

I believe that it should be the function of a university outpatient clinic to provide guidance to blind infants and children and their parents. The same service should be available for the even greater number of children with other handicaps such as deafness and cerebral palsy. The specific details of the advice for the children with each type of handicap will be different but the basic concepts of neuromotor, cognitive, social, and personality development remain the same. . . . The basic efforts are to encourage the mother to give the blind infant as much stimulation by way of touch, sound, and movement as possible; to keep encouraging her to give the child independence of action as the child enters the toddler age; and to encourage her to place the child in a nursery school when the child is appropriately three to four years of age (1966, pp. 177-178).

☐ Brown, Briller, and Richards (1967) demonstrated the advantages of a planned course of sensory input for children over the age of two years. Using an inter-disciplinary approach: 1) they counseled the parents, usually the mother, who brought the child to the center; 2) they gave the child planned growth activities; 3) they provided opportunities for the parents who brought the children to the center to meet and talk while the children were engaged in growth activities; 4) they had evening meetings with the fathers; 5) they visited the home to train the child there. This program was helpful to the children and actually prepared some of the children for entry into school. However, it has limitations. One is that it is after the fact, in that so many developmental stages have already occurred by the time the child can enter the program. Another is that the program emanates from a disability specialization system which tends to introduce biases into the curriculum.

Course of Sensory Input

In reading about and in visiting some of the existing programs for pre-school children, the writer felt that, although these programs are helpful, there should be a major effort by medical centers and agencies working with special disabilities to advocate the concepts of Barsch regarding an infant curriculum. There is a tendency by specialized agencies almost to deny the infancy stage in the life of the blind child. Perhaps this is due to the lack of sufficient specific knowledge that would give the rich variety of meaningful sensory input to the child and to the lack of an infant curriculum for the blind and visually impaired infant.

Need for a major effort

☐ The body of knowledge gained from the science of sensory deprivation underlines the fundamental need for optimal sensory input during infant de-

Parental Attitudes

velopment. The parental attitudes have a crucial effect on the delivery of appropriate sensory input to the infant in his various developmental stages. In effect, as he comes into the world through his parents, so does the world come to him through his parents. The analogy can be carried further by indicating the existential importance of the gestation and lactation periods which give the mother the role of primary educator.

An infant curriculum which, through planned sequences, provides rich, varying sensory stimulants appropriate for the respective developmental stages of infancy and implemented by the mother in a mutually gratifying manner will enable the infant to reach his potential as a mature adult.

At this point in time, there is little specific material for a curriculum for a blind or visually impaired infant. Such people as Lowenfeld and Moor are perhaps the main sources in the literature regarding such specific information. It will perhaps be necessary for a task force of pediatricians to analyze in depth the generic content material for developing meaningful and varying sensory input to infants who are sensorily deprived. They will likewise have to consider the specific restrictions of the various categories of impairments. This effort will need the support and advocacy of specialized agencies, both public and private, to meet these most fundamental needs of the sensorily deprived infant.

The following anecdote, heard recently by the writer, illustrates many of the points made in this paper. A special educator in the field of visual impairment was in Africa with her husband who had been assigned there for over a year. She decided to put her knowledge and experience to work and therefore tried to find some blind children with whom she could work. She looked particularly for children with "blindisms." She could find none. She discovered instead that the parents, and especially the mother, carry the infant on their backs for much of the day. This contact provides the infant with much sensory input and a constant awareness of the parent's body. Even from the point of view of kinesthesia the child learns a great deal. Because of this, there is little need to fall back on auto-stimulation.

□ In any study of this problem the researcher and, then, the practitioner should look to the needs of the infant and the parents as seen from their point of view. Too many theories and programs have been advanced which are looking for the infants and parents to prove them. It is so important to try to perceive the world as the infant does at a particular point in his development and the parents as they perceive their baby and themselves.

Nihil in intellectu sed prius in sensu. Thomas Aquinas.

Altman, S. Psychological problems of the pre-school blind child. In *Proceedings of the World Conference on Work for the Blind*, pp. 25-37. New York: American Foundation for the Blind, 1931.

Barsch, R. H. The infant curriculum: A concept for tomorrow. *Exceptional Infant*, 1967, 1, 542-558 (Special Child Publications).

Beers, N. Pre-school blind child in the hospital. *New Outlook for the Blind*, 1958, 52, 216-221.

Little material is available

An anecdote

The Infant's Point of View

Bibliography

- Brown, C. E., Briller, S., & Richards, S. S. A new program for young blind children: A cornerstone for future service. *New Outlook for the Blind*, 1967, **61**, 210-217.
- Bruner, J. S. The cognitive consequences of early sensory deprivation. In Solomon, P., Kobzansky, P. E., Leiderman, P. H., Mendelson, J. H., Trumbull, R., & Wexler, D. (Eds.), *Sensory deprivation*, pp. 195-207. Cambridge, Mass.: Harvard University Press, 1961.
- Cerulli, F. & Shugerman, E. E. Infancy: Counseling the family. *New Outlook for the Blind*, 1961, **55**, 294-297.
- Cobb, S. Foreword to Solomon, P., Kubzansky, P. E., Leiderman, P. H., Mendelson, J. H., Trumbull, R., & Wexler, D. (Eds.), *Sensory deprivation*, pp. xvii-xviii. Cambridge, Mass.: Harvard University Press, 1961.
- DiLeo, J. H. Developmental evaluation of very young infants. *Exceptional Infant*, 1967, **1**, 121-139 (Special Child Publications).
- DiLeo, J. H. *Physical factors in growth and development*. New York: Teachers College Press, 1970.
- Heckman, J. The child is blind. *Nursing World*, 1955, **129**(8), 25-30.
- Koch, R. & Dobson, J. C. *The mentally retarded child and his family*. New York: Brunner/Mazel, 1971.
- Lowenfeld, B. The pre-school blind child and his needs. *Exceptional Children*, 1953, **20**, 50-55.
- Lowenfeld, B. *Our blind children: Growing and learning with them*. 3rd ed. Springfield, Ill.: Charles C Thomas, 1971.
- Moor, P. An educational service for the blind child of pre-school age. *Outlook for the Blind*, 1948, **42**, 235-242.
- Moor, P. *Toilet habits: Suggestions for training a blind child*. New York: American Foundation for the Blind, 1952.
- Moor, P. Meeting the needs of the pre-school blind child and his parents. Reprint from *Education*, February 1954.
- Norris, M. What affects blind children's development. *New Outlook for the Blind*, 1956, **50**, 258-267.
- Parmelee, A. H. Developmental studies of blind children: I. *New Outlook for the Blind*, 1966, **60**, 177-179.
- Pittman, Y. H. An exploratory study of the eating problems of blind children. *New Outlook for the Blind*, 1964, **58**, 264-267.
- Solomon, P., Kubzansky, P. E., Leiderman, P. H., Mendelson, J. H., Trumbull, R., & Wexler, D. (Eds.) Introduction to *Sensory deprivation*, pp. 1-5. Cambridge, Mass.: Harvard University Press, 1961.
- Tait, P. The effect of circumstantial rejection on infant behavior. *New Outlook for the Blind*, 1972, **66**, 139-151.

Sensory Stimulation in the Nursing Home

ABSTRACT: To continue functioning adaptively, the individual needs constantly varying forms of sensory stimulation. Since such stimulation is often neglected in the nursing home environment, producing particularly devastating psychological effects in the sensorily impaired person, specific suggestions are provided for im-

proving this situation. Orientation and mobility specialists can be invaluable catalysts in providing the skills and motivation necessary for enriching such an environment. Specialists and regular staff can, by analyzing the person's entire daily routine, provide many opportunities for additional sensory stimulation.

Man needs a variety of sensory input in order to maintain contact with reality. If one were to apply the findings of the various studies on sensory deprivation to the nursing home situation for a sensorily impaired person, the nursing home would take on the appearance of a sensory deprivation laboratory.

Sensory Deprivation

Very often in the nursing home situation, a person with a primary sense loss is housed with more chronically ill patients. The physical setting is usually minimal in olfactory, gustatory, tactile, visual, and auditory stimulation. In addition, the patient is very often confined to his room and is not ambulatory due to illness or external restriction. In many cases there are no visitors from day to day. When all of this occurs and continues for days, months, and years, it is no wonder that there are marked psychological manifestations such as anxiety, delusions, and hallucinations.

Certainly the field of gerontology can make great use of the wide variety of experimental findings emerging from the area often referred to as sensory deprivation. Rehabilitation workers likewise should evaluate the situation of their clients in relation to these findings. In *Sensory Restriction*, Schultz writes:

Use of findings

This book will mark an attempt to provide empirical support for the proposition that man needs constantly varying forms of stimulation to function adaptively in his environment . . . an absence of variety, i.e., an environment offering little or no stimulus change, is an aversive state which most men seek to avoid. Too long exposure to unchanging sensory input produces . . . physiological, cognitive, perceptual, and affective impairments (1965, p. 1).

The reader can no doubt testify to this by calling upon his own experience of being confined to bed for several days with an illness. We become lethargic, restless, irritable, and thoroughly bored. More dramatic are the effects on a person who is severely confined in a hospital with a long-term illness, such as a polio victim in an iron lung, or orthopedic cases restricted in body casts or traction. Leiderman, Mendelson, Wexler, and Solomon (1958) collected case observations on a number of such medical and surgical patients undergoing long-term hospital confinement. They found in these patients certain psychotic-like symptoms including pathological manifest anxiety, delusions, and hallucinations. These symptoms did not respond to the usual medical or psychiatric regimen but did respond to changes in the sensory environment of the patient, such as increased social contact, keeping on a night light, and providing a radio or television set. Zubeck, Pushkar, Samson, and Gowing (1961) suggest that:

Long-term confinement

What is required for normal functioning of the brain is constantly varying meaningful stimulation. When meaning is absent or is reduced for long periods of time, for example under darkness, silence, diffuse light, white noise, or random visual

stimulation, psychological disturbance. . . . will occur. Furthermore, since these sensory conditions are not equal to meaningfulness they might be expected to produce somewhat different behavioral effects.

☐ Schultz, in his summary states:

For an adult, effective functioning depends on continued maintenance of contact with an appropriately rich sensory environment (relative to that in which early learning took place). Stimulus deprivation in adult life, then, would interfere with this maintenance need of the organism and would disrupt the evaluation process by which the models and strategies used in dealing with the environment are monitored and corrected. Thus, one may suggest that one of the primary sources of anxiety is a state in which one's conception or perception of the environment with which one must deal does not "fit" or predict that environment in a manner that makes action possible (p. 194).

Bertram B. Moss, in his book *Caring for the Aged* (1959), devotes a chapter to hearing and vision disorders. Some of his reflections are appropriate.

If loneliness is the major problem of old age, the main medical cause of such isolation must be the impairment of sight and hearing. It is too often assumed that these losses are inevitable in the aged person. Very often, they are not. . . . And when they are inevitable, it is now possible to correct or to compensate for such losses.

It would be hard for anyone to judge whether the loss of vision is worse than the loss of hearing, but psychiatrists have long noticed that there is a marked difference in the way which people adjust to the two sensory losses. . . . It has been suggested that the loss of "background noise" slowly deadens the world about the person with impaired hearing, reducing the willingness to maintain social contacts.

☐ The need for sensory input for the sensorily impaired person in a nursing home situation is evident. In fact, if this bastion is lost, then all is lost. Consequently, a program of orientation and mobility in this setting should be rich in sensory stimulation by considering all avenues of the sensorium. Schultz's statement that man needs constantly varying forms of stimulation to function adaptively in his environment should be foremost in the mind of the person planning such a program.

The overall goal of the orientation and mobility specialist working with elderly blind persons in a nursing or rest home placement would be to assist them to function and participate to their capacity. This would not exclude the possibility of developing their abilities so well that they would be able to leave the protective environment.

☐ The immediate goals of an agency planning such a program whereby orientation and mobility specialists would work with elderly blind persons in nursing homes or rest homes would be as follows:

1. To reach and offer service to as many blind persons living in nursing or rest homes as possible.
2. To train not only the blind individuals, but the staff of these homes so that the work would be reinforced for the current blind person and continued for other blind persons entering the situation.

Continued Contact

Sensory loss

The Nursing Home

Orientation and mobility

Immediate Goals

3. To enable the blind persons receiving the service to function and actively participate in their placements at the level of their capability.

General considerations for program content would be as follows:

General considerations

1. To work with the elderly blind person in the area of orientation and mobility, using human guide and protective techniques with the arms and hands. To introduce the cane in cases where it would seem feasible.

2. To incorporate techniques of daily living instructions throughout wherever possible to meet existing needs.

3. To work with staff at all levels in these homes, helping them to understand the elderly blind person better; to instruct them in various techniques and how they can implement them and reinforce their use.

4. To make recommendations for other services, if feasible (either in the home itself or from some other agency), based on a careful assessment of the situation.

5. Through the nursing staff or through the social workers to involve the families of the elderly blind persons in the program.

Family involvement

6. To work closely with the counselors from the state agency, reporting reaction, goals, accomplishments, and failures.

7. To constantly adapt lesson plans to the needs of the elderly blind person and the realities of the environment.

8. To plan all activities in full consideration of the information contained in the medical record. It is desirable to make contact with the physician managing the medical needs of the blind person. When a doubt arises, proposed activities could be reviewed with him. However, his approach should be evaluated.

9. To consider the possibility of a record of activities becoming part of the case record.

10. To instruct the other people who share the room with the elderly blind person where appropriate and feasible. They could reinforce the efforts of the instructor.

Instructing others

11. To refer problems out of one's competence to the appropriate person.

12. To plan with the awareness that risk is the price of living and that no guarantees can be made with regard to the possibility of failing.

13. To avoid in relating to the blind person either over- or under-involvement.

14. To determine whether or not the person belongs in the nursing or rest home; to assist the family if the person should return to the family home.

15. By providing a variety of sensory stimulation to assist the blind person to regain contact with his environment and to re-enter society.

☐ Specific considerations for program content would be as follows:

Program Content

1. *Human Guide.* In instructing the elderly blind person to use the human guide technique, the instructor must consider physical condition, stamina, attention span, and attitudes of the person. He must accommodate his instruction to the capability of the individual. He may blend in instruction in other sensory areas as appropriate.

2. *Cross Body Protective Technique.* In teaching protection of the upper and lower parts of the body, here again the instructor must consider such physical factors as an arthritic condition or a heart problem.

3. *Personal Hygiene.* Is the client washing himself? Is he allowed to go to the bathroom by himself? Built into these functions are opportunities to motivate the person to move freely from one place to another. Taking care of such personal needs can enhance the self image. This is an area that may be overlooked for its potential by the nursing staff. They might be content that the person is washed rather than caring for his own needs. The instructor might have to insist that reinforcement be

given here. In combing the hair, in using toilet water or after shave lotion, other senses, such as olfactory and kinesthesia, are activated. Make-up can give a new feeling to a woman. Tactile and olfactory stimulation is achieved.

4. *Clothes*. Does the client get dressed each day? Does he or she have clothes to wear? These questions affect self image. Dressing helps to establish the time sequence of the day. If the person gets dressed, he usually feels better and has more motivation to go out of his room. In the act of dressing there is a great deal of mobility and use of motor skills. If a family member brings him something to wear, this is a tangible expression of care.

Clothes

5. *Eating*. Where does the elderly blind person eat? In his room? In the dining room? Does he eat with or without assistance? These questions affect self image, nutrition, motor skills, and other sensory input. To get to the dining room may be a good incentive for better mobility.

6. *Communication*. Does the person use the telephone? Does he have change? To call his friends and relatives may also be a good incentive to travel freely and safely. Is there a radio or a television in his room? Does he use them? Does he make use of any volunteer reader service? All of these questions involve a multitude of sensory stimulants.

Communication

7. *Recreation*. Does the person ever get out of his room? Out of the nursing or rest home? What exercise does he get? What are his social contacts? Does he do anything for anybody else? Here again are opportunities for sensory stimulation.

The above specific considerations are not meant to be a complete outline of material for program content. Their purpose is to suggest that, within a framework of reality, there are many currents of sensory stimulation. It will be necessary for the instructor to make them all come alive and thereby offer a variety of sensory stimulation to the elderly blind person. In so doing he will assist the person to remain in contact with reality.

□ The key person in this program is the instructor. Consequently, it is evident that he should want to do this type of work. It is not the job for a new instructor or a problem person. The instructor must be one who can be content with minimal achievement by his client. It may be a herculean task for the older person to get to the bathroom on his own. However, if the instructor feels that everyone he instructs should be able to go into the city and shop, he will feel very frustrated and most likely convey this to the blind person. The instructor in this situation, as in any other, must be a person who is concerned with people and can teach people how to use their sensorium to the level of their capability. Each instructor in such a program should be under competent supervision and have access to various consultants.

Experienced Instructor

Leiderman, P. H., Mendelson, J. H., Wexler, D., & Solomon, P. Sensory deprivation: Clinical aspects. *Archives of Internal Medicine*, 1958, **101**, 389-396.

Moss, B. B. *Caring for the aged*. Garden City, New York: Doubleday, 1959.

Schultz, D. P. *Sensory restriction: Effects on behavior*. New York: Academic Press, 1965.

Solomon, P., Kubzansky, P. E., Leiderman, P. H., Mendelson, J. H., Trumbull, R., & Wexler, D. (Eds.) *Sensory deprivation*. Cambridge, Mass.: Harvard University Press, 1961.

Zubeck, J. P., Pushkar, D., Sansom, W., & Gowing, J. Perceptual changes after prolonged sensory isolation (darkness and silence). *Canadian Journal of Psychology*, 1961, **15**, 83-100.

Bibliography

Nominations for the Bruce McKenzie Award Are Sought

At the 1971 biennial meeting of the American Association of Workers for the Blind (AAWB) in Richmond, Virginia, the special interest group concerned with social case services, known as Group III, decided to establish a biennial award to honor outstanding rehabilitation teachers or rehabilitation teacher supervisors. Therefore, a committee to screen candidates for the first Bruce McKenzie Award, to be presented at the 1973 AAWB meeting, has been appointed by the chairman of Group III, Miss Frances Crawford. The committee is comprised of the following persons: Alvin Roberts, Chairman (Community Services for the Visually Handicapped, 2209 West Main Street, Marion, Illinois 62959); Robert Knachel (Bureau of Blind Services, 2720 Park Street, Room 217, Jacksonville, Florida 32205); and Roy Ward (Virginia Commission for the Visually Handicapped, 3003 Parkwood Avenue, Richmond, Virginia 23221).

☐ Those persons wishing to nominate candidates for the 1973 McKenzie Award should submit written summaries of each candidate's contribution to the field of rehabilitation teaching to any of the committee members listed above. The following criteria are to be used for determining the eligibility of candidates:

1) A candidate must be an active or retired rehabilitation teacher or rehabilitation teacher supervisor.

2) A candidate must have ten years or more of service in the field of rehabilitation teaching.

3) A candidate should have exceptional leadership qualities.

4) The uniqueness of a candidate's contribution to the field should be given due consideration.

5) A candidate's contribution should have been national in scope.

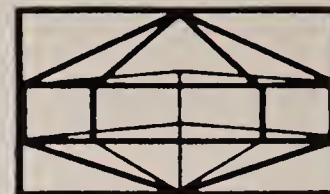
☐ The award was named for Mr. Bruce McKenzie in recognition of his many contributions to the rehabilitation teaching profession. Mr. McKenzie was instrumental in the preparation of a number of rehabilitation teaching manuals and was president of the Mid-American Conference of Rehabilitation Teachers and chairman of AAWB Group III. Until his death on November 29, 1969, Mr. McKenzie was a rehabilitation teaching supervisor for Community Services for the Visually Handicapped, State of Illinois. Prior to becoming supervisor, he was a very successful practicing rehabilitation teacher.

Nominations should be submitted to a member of the committee by May 1, 1973.

The Award Committee

Criteria

Bruce McKenzie



Apartment Comportment

For a number of years, I was a member of the minority group around New York City called commuters. Generally speaking, these are people, both men and women—some of whom are blind—who ride one or more trains to get to work in the city each day from some supposedly beautiful spot in the country.

For those of you who have never had the experience, may I explain. A blind guy, to be certain of his connections, must allow a lot of time. When you are a commuter, you simply do not have time. The 8:02, no matter what you may have heard, normally runs on time. So, you had better be on schedule.

Well, getting on a train is not such a great problem once one gets the hang of it. That includes transferring at Hoboken. One learns how to follow the crowd, and find the way to the subway rather than to the ferry.

Nevertheless, and notwithstanding, I decided the daily tension of commuting was not worth it. I moved into an apartment in New York City.

My first apartment in the city was on the tenth floor. The elevator was self-service. For my blind friends and possibly some of my friends who are not, let me tell you some of my experiences.

One night after a party at someone else's house—New Yorkers call their apartments "houses"—I got home about two

in the morning. I left the elevator and proceeded with confidence, and my trusty white cane, to my door. It struck me as odd that the door opened without my using my key.

Momentarily, I was disconcerted by what I thought had been my carelessness. I entered the foyer—only to stop short when my feet failed to encounter familiar carpeting. Other clues and cues immediately were working, such as unaccustomed acoustics and odor and just general environment. Nothing for it, I was in the wrong apartment—an intruder and a very scared one.

Quietly and carefully, I backed out into the corridor, closed the door very softly and scooted for the elevator. I hoped it



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

**MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR**

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

would answer the button before irate tenants came after the burglar. It did.

The answer, of course, was simple. I had gotten off on the wrong floor and the apartment was vacant—its door left unlocked for the convenience of potential renters. I decided to mark my own door in some fashion, ending with a length of string wound around the shaft of the knob. Two days later a helpful porter cut it off.

Subsequently, I moved to another building. My new apartment is on the top floor, euphemistically called the penthouse. My problem is over—there is only one elevator button on that floor and it is the only floor where that circumstance occurs.

Communication

As the elevator door slid open at the lobby

one afternoon, I could tell that there was some one else waiting and I was fairly certain that it was a woman. Then happened what so often does—she wanted to help me into the elevator. As a gentleman, I wished her to precede me. I was delighted that she accepted my gesture readily and did so.

"Thank you, young man," she said, which was a hint to me that she was elderly. As the elevator stopped at her floor, she told me with profound sincerity how much she had always enjoyed seeing me going in and out and admired my personality and ease. "I never cease to wonder," she said, "how you people manage to learn that manual alphabet."

And the Blind Shall Lead

Like most people who lived around New

York at the time, I have my own special reason for vividly remembering the great power failure of 1965, called the Blackout. Getting from the airport—I had just landed from a trip to Pittsburgh—was through a lucky break. An airline crew gave me a ride in their official station wagon.

Getting from the lobby of the apartment to the top floor, however, was another story. No elevator—and it was 15 floors up. Well, really only 14 since there is no 13. A valiant doorman had been lighting the way up various numbers of flights for other people for over two hours, and while he was willing to lead me and another group awaiting escort, his flashlight was not. You've guessed it—suitcase, white cane, and all, I proudly led the way.

—M. R. B.

Review

Social and Rehabilitation Services for the Blind, by Richard E. Hardy and John G. Cull. American Lecture Series, Publication No. 846. Springfield, Illinois: Charles C Thomas, 1972. xvi + 403p. \$15.75.

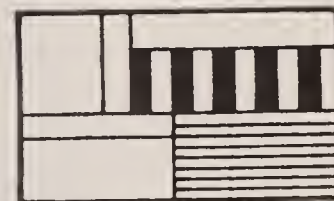
Reviewed by Herbert Rusalem, Ed.D.

Aware of the wide dispersion and general inaccessibility of essential facts about rehabilitation services for blind persons in innumerable books, journals, reports, and syntheses, the authors designed this volume to bring together within a single pair of book covers a wide range of comprehensive information. Chapters range from presentations of historical and philosophical backdrops to discussions of specific resources and procedures, conveniently bringing to the attention of the reader a multitude of key concepts, facts, and approaches that characterize the current state of the art of the rehabilitation of blind individuals. Many of the chapters

were prepared by distinguished authorities in the field. Thus, readers will be introduced to international projects by Dr. Douglas C. MacFarland; to psychological evaluation by Mrs. Mary K. Bauman; to the historical and philosophical underpinnings of the field by Warren Bledsoe; and to communications by Robert S. Bray.

The special strengths of this book for the professional reader are its breadth of concern, its authoritativeness of chapter authorship and general editorship, and its positive tone. These attributes assure the volume wide use as a reference in a field of human service that, unfortunately, can lay claim to all too few dependable and factual accounts of rehabilitation ideas, processes, and procedures. Beyond its value as a reference, this book will provide entrants into the field of service to the blind with an overview of important service elements and some of the means through which these elements are combined into service delivery systems.

"Cafeteria-style" books which present materials developed by a variety of authors are fair game for reviewers. Potshots can be taken by such reviewers with almost total impunity at the unevenness of individual chapters, their organizational diffuseness, the customary failure of their editors to interpret and integrate the individual presentations, the fragmentary nature of some of the chapters and the richness of detail in others, and the confusion that may be created by authors who are unaware of each other's work and who, consequently, overlap, duplicate, or contradict each other. But, it would be counterproductive to simply echo these pontifical judgments about the work at hand. Suffice it to say that it contains all the values and limitations of other books in its genre but that, nevertheless, it should be extended a warm welcome. This is not a field that, at the moment, can expect definitive and systematic mirrors of its operations. Indeed, the current volume has its greatest value in



PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

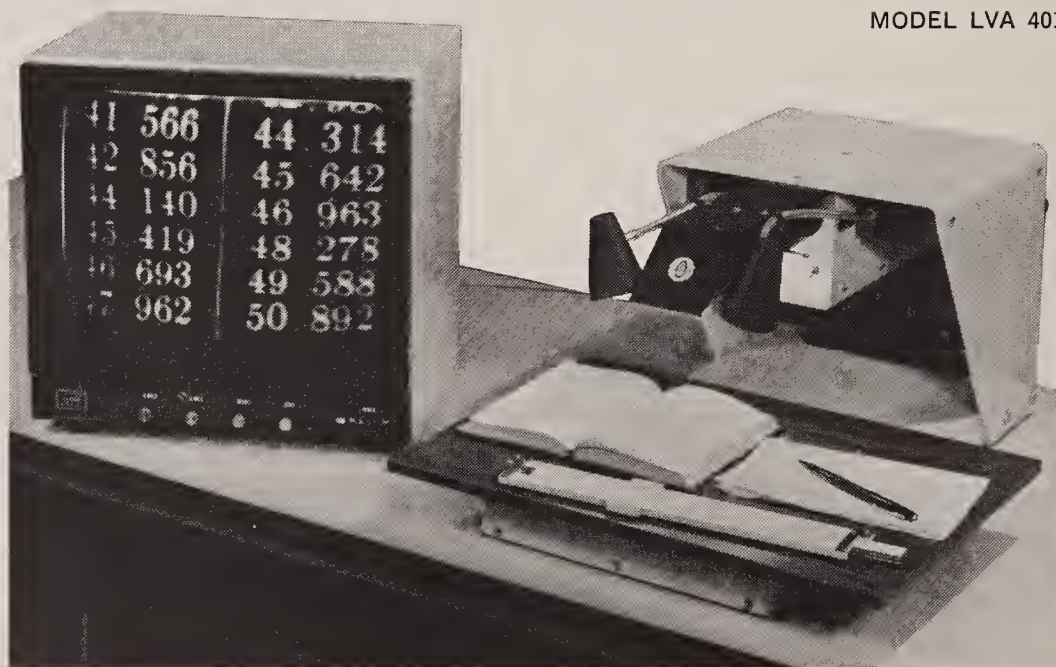
FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

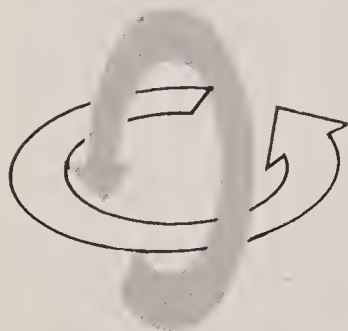
New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)



MODEL LVA 501



MODEL LVA 401



**PELCO
SALES
INC**

351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402

reflecting as it does so accurately the current state of the art of service to blind persons in America. To read it is to see ourselves opened for examination by distinguished leaders who, despite their fundamentally positive view of the professional world, suggest disquieting trends.

As communicators of the true state of being, the chapter authors (with a handful of exceptions) indicate that service to blind persons still is preoccupied with the narcissistic concerns of those who deliver the services as contrasted to the focal role of the target group. In essence, the field seems to have turned inward to contemplate the navel of its techniques; the fine points of doing intake, performing social, psychological, medical, and vocational evaluations; the nit-picking of utilizing different counseling approaches; and the special procedures for placing blind individuals in employment. Such concerns are legitimate; even desirable. But, not within the context of unquestioned loyalty to a troubled system that is increasingly coming under attack.

Recent re-evaluations of the existing public-voluntary agency service delivery system for blind persons suggest that all is not well in this system—nor, probably, has it ever been. Despite recurring attacks made against their provincialism, exploitation of blind persons, and self-perpetuating parochialism, voluntary agencies have revealed remarkable durability. Massive, well-communicated criticisms, such as those leveled at them by Chevigny and Scott, the increasing pressures applied to them by consumer groups, and the efforts of state rehabilitation agencies to elevate their voluntary agency colleagues have borne modest fruit. All too many private agencies still extend a low profile into the twentieth century. For their part, state agencies still play out their numbers games in accordance with cost-benefit analyses and federal reward systems while ignoring the central problem of blind persons in this country.

That problem is that the American ecol-

ogy frustrates the efforts of both blind persons and their advocates to reduce the massive barriers that have been socially erected in every community to the self-fulfillment of the seriously visually impaired individual. Out there in the community the critical battle is *not* being fought; it is being lost, while we piddle around with discussions of whether there should be more social work or vocational counseling or less in a particular agency program. The fact of the matter is that professional workers with the blind will continue to be engaged in “busy work” of very limited effectiveness so long as the focus of their efforts remain the vain attempt to strengthen the blind individual to cope with a debilitating and demeaning society.

The book being reviewed reminds us that “the therapeutic approach” to blindness still dominates the field. In this approach, the underlying assumption is that the environment is a “given” and the function of the rehabilitation worker is to retool the client or patient to struggle with environmental (both physical and human) exigencies. This is neither the place nor the time to explore in depth the deficiencies and wrong-headedness of this view of blind persons. Suffice it to say that there is little evidence to suggest that pathology is widespread among blind people; on the contrary, there is mounting confirmation of the belief that, insofar as blind people are concerned (and others as well), it is the social structure that is sick unto death. So busy are we treating the victims of the deprivation that, in our innocence and perseveration, we are aiding and abetting the true precipitator of the problems of blind persons—the social environment.

Thus, while this book deals at length with the customary preoccupation of professional workers to see to it that blind persons provide us with the “right” information, take the “right” tests, or prepare for the “right” occupations, it avoids the key question: “What are we going to do to provide blind persons with an ecology that is unpolluted by behaviors that reduce the

blind individual’s satisfaction with life, productivity, and contributions to himself and others?” It seems apparent that it will not be accomplished by the otherwise commendable achievement of turning out a handful of “superblind” individuals who generate “gee-whiz” reactions on the part of the sighted. Awe and wonder of blind folk heroes do not seem to have generalized into more favorable conditions for ordinary blind citizens. What is needed is a better world for the garden-variety blind person who, like the garden variety non-blind person, is overwhelmed by an environment that dehumanizes and depletes him.

The editors of this book and their cooperating chapter writers are in our debt for faithfully recording the nature of our times. In performing this task they have educated us to the nature of things as they are and have suggested visions of the nature of things as they could be. Now, with a true and faithful image of the present at hand, it is time to explore ways of shaping the future in this field rather than having it shaped for us. That shape should include an environment that grants dignity, self-realization, and true participation to the blind individual in accordance with his intrinsic worth. Although the argument is no longer valid, some colleagues insist that the task of restructuring an environment is too enormous even for our field to undertake. If so, why don’t we start more manageably by eliminating the demeaning, exploitative, and debilitating components of those service agencies which glibly commit themselves verbally to the realization of the potential of blind persons but which, in effect, produce the reverse effect?

Dr. Rusalem is professor of education and assistant director of the Research and Demonstration Center for the Education of Handicapped Children, Teachers College, Columbia University, New York City. He is the author of Coping With the Unseen Environment: An Introduction to the Vocational Rehabilitation of Blind Persons.

You can help a blind person read and write.

More than 100,000 people in this country are classified legally blind.

Yet at least half of them have enough residual vision to read virtually anything in print . . . and even write in their own hand, with the help of Apollo's Electronic Visual Aid.

Here's how:

In a system designed specifically for the partially sighted, Apollo employs high resolution television to compensate for visual impairments.

The sophisticated electronics of the EVA simultaneously magnify, intensify the brightness and raise the contrast of normal reading material to a level that is legible even to many severely handicapped people.

Even fine print and low contrast colors are electronically converted to a large, crisp, glareless black and white image on a highly refined 17" television monitor.

And the system is very easy to use.

The reading material or writing pad is placed on a 16" square "scanning table," which supports it in position under the camera. Easy fingertip control glides the table smoothly in all directions for reading or writing.

A zoom lens system provides for instant change of magnification, from 4X to 40X as required.

The entire system (table, camera stand and monitor) occupies about a 2½ foot square on the desk or table top, and is so portable it even comes with a travel case.

It can, in fact, be used with a conventional television receiver, if desired.

What does all this mean to the partially sighted?

Independence. No longer restricted to special large print editions, readers or talking books, he can read virtually anything in print. Including today's newspaper, today.

And he can write. Reports, personal letters, memoes, even checks, so he can keep his own accounts. Privately. **Independently.**

There is even a typewriter attachment available, so he can type, use an adding machine or any other office machine.

The EVA could well make the difference in getting or keeping a job for the partially sighted.

How can you help?

If you know anyone who is or is becoming partially sighted, make sure he knows about Apollo's Electronic Visual Aid . . . low vision clinics, schools and other service institutions are now making the EVA available to hundreds of individuals.

Or call or write Apollo for more information on how you can help him obtain his own EVA.

Prices start at under \$1,000; State and Federal funds are available for qualified people.



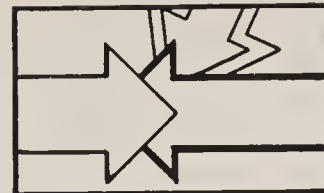
Apollo's Electronic Visual Aid.

Independence for the partially sighted.



A limited number of key areas are now open for representation.

Apollo Lasers, Inc., 6365 Arizona Circle, Los Angeles 90045 (213) 776-3343



Closed-Circuit Television Reading Systems

Because of the increasing interest in the use of closed-circuit television (CCTV) reading systems designed for the use of visually handicapped persons (see, for example, the two articles in this issue of the *New Outlook* by Davis, Asarkof, and Tallman and by Israel), the editors have prepared the following bibliography on the subject. Interested readers can use this information to investigate the uses and limitations of this new breed of sensory aid.

Bibliography

- Boehm, G. A. W. Sam Genensky's marvelous seeing machine. *Reader's Digest*, January 1971, pp. 27-34.
- Genensky, S. M., Petersen, H. E., Moshin, H. L., Clewett, R. W., & Yoshimura, R. I. *Advances in closed circuit TV systems for the partially sighted*. R-1040-HEW/RC. The Rand Corporation, Santa Monica, California, April 1972.
- Genensky, S. M. Closed circuit television and the education of the partially sighted. *Educational Technology*, 1970, **10**(8), 27-31.
- Genensky, S. M., Baran, P., Moshin, H. L., & Steingold, H. A closed circuit TV system for the visually handicapped. *AFB Research Bulletin*, 1969, **19**, 191-204.
- Genensky, S. M., Moshin, H. L., & Steingold, H. A closed circuit TV system for the visually handicapped and prospects for future research. P-4147. The Rand Corporation, Santa Monica, California, July 1969.
- Genensky, S. M. Some comments on a closed circuit TV system for the visually handicapped. *American Journal of Optometry and Archives of American Academy of Optometry*, 1969, **46**, 519-524.

Kuck, J. H. How to build a closed circuit television reading aid. *AFB Research Bulletin*, 1970, **21**, 49-76.

Lavieri, M. & Wilson, G. B. A portable closed circuit television aid for the partially sighted. *American Journal of Optometry and Archives of American Academy of Optometry*, 1972, **49**, 178-179.

McGoldrick, P. *Visual aid closed-circuit TV*. UCRL-51160. Lawrence Livermore Laboratory Report, December 17, 1971.

Mintz, M. J., Gaynes, E. M., Gordon, A. H., & Blau, R. P. Rehabilitation of the visual cripple. *Journal of Pediatric Ophthalmology*, 1971, **8**(1).

Optical aid developed by counselor. *Rehabilitation Record*, 1971, **12**(1), 35.

Potts, A. M., Volk, D., & West, S. A television reader. *American Journal of Ophthalmology*, 1959, **47**, 580-581.

Robinson, R. L. Sensory aid: Closed circuit television. *BVA Bulletin*, 1972, **27**(2), 12-13.

Weed, C. A. Comparison of a television reader for the partially sighted with optical aids. *Hartford Hospital Bulletin*, 1970, **25**, 186-189.

Weed, C. A. Comparison of a television reader with optical reading aids for the partially sighted. *Eye Physician*, 1969, **2**(5), 15-18.

Weed, C. A. Electronic image enlargement for the partially sighted: A description of apparatus and preliminary results. *Hartford Hospital Bulletin*, 1968, **23**, 66.

Manufacturers

The following manufacturers of CCTV reading devices should be able to answer questions about specifications, special features, and costs. Some have CCTV systems in serial production; others may only build them on order.

Apollo Lasers, Inc.
6365 Arizona Circle
Los Angeles, California 90045
Electronic Visual Aid, Models #2 and #4. Camera and 9-inch or 17-inch monitors.

Designs for Vision
40 East 21st Street
New York, New York 10010
Electro-Vision Magnifier.

General Electric Supply Company
680 Antoinette Street
Detroit, Michigan 48202
Model 701 Electronic Magnifier.

Industrial Television Systems
4518 West Orient Road
Tampa, Florida 33614
Telereader.

National Institute for Rehabilitation
Engineering
59 Hamburg Turnpike
Pompton Lakes, New Jersey 07442

Opaque Systems Ltd.
100 Taft Avenue
Hempstead, New York 11550
Opaque Systems Electronic Magnifier.

Pelco Sales, Inc.
351 East Alondra Boulevard
Gardena, California 90248
Electronic Visual Aid System. Portable; 17-inch monitor.

Quanta Systems Ltd.
355 King Street West
Toronto 135, Ontario, Canada

Tashi
11690 Ramona Boulevard #37
El Monte, California 91732
Electronic Visual Aid.

Visualtek
1901 Olympic Boulevard
Santa Monica, California 90404
Read/Write System. Camera and 9-, 13-, 16-, or 19-inch monitors.



A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be 350-1,000 words in length.

Status Quo:

A Synonym for Compromise

Bernard M. Krebs

Throughout the history of service to the blind, some concerned workers have shown themselves to be averse to change.

In their view, it would be preferable to maintain the status quo in education and other services rather than to cause ripples which could only be a threat to the limited capacities and capabilities of blind people. Fortunately, this allergy to change has not prevailed and thus the advances in many service areas have enabled blind people to attain new horizons in education and accomplishment.

"Blindness: A Field in Need of Compromise," which appeared in the November 1972 issue of the *New Outlook for the Blind*, is perhaps yet another example of an effort to compromise the full development of the capacities of blind people by

calling for the maintenance of the status quo. The portion of the article dealing with braille is replete with misinformation and misstatements which require correction and airing.

The conflict over competing embossed systems was finally resolved in 1932 by the international adoption of "Standard English Braille" as the approved embossing system for all English-speaking peoples. After a period of about 24 years in actual use, English Braille was re-examined for efficiency and possible improvement by committees representing England and the United States in 1956. The resulting recommended changes were tested by braille

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

users and then approved without reference to "personal gratification" or to "pressure groups."

The braille codes for music, mathematics, chemistry, and computer notation have been designed to further the cultural and educational development of blind people living and competing in a sighted world. The fact that many blind people receive education in public facilities rather than in residential institutions made it imperative that braille codes be developed which could accurately transmit the symbols and formats employed in print publications. In evolving these codes, the special requirements of both the braille reader and the braille transcriber—without whose services braille textbooks would be virtually unavailable—were afforded full consideration. Where a "conflict" in views occurred, the requirements of the braille reader prevailed.

At one stage in the development of the mathematics code, the status quo was ad-

vocated by the principal of a residential school for the blind who advised that its provisions be terminated at the high school level. Despite this view, the code for mathematics has been extended to encompass the entire field of higher mathematics with allowances for further expansion to include scientific notation of the future. Thus, it provides the wherewithal for those whose abilities and interests necessitate more comprehensive information and training. Changes have been made only when substantial evidence from either readers or transcribers called attention to lack of efficiency or information and not upon individual preference or tastes.

The membership of the Braille Authority is comprised of five eminently qualified persons whose experience and capabilities have been amply demonstrated by their important contributions to the field. Their combined views are representative of purchasers, publishers, transcribers, readers,

and educators. In addition, advisory committees of experts and specialists in specific areas of competency actively participate in braille code development. Finally, any suggested changes or revisions must be ratified by the National Advisory Council to the Braille Authority whose membership is representative of the entire breadth of service with and for the blind.

The Braille Authority is not averse to change provided that its end effect is advancement in education, training, or employment. Changes are brought through careful analysis and full discussion. The Braille Authority approaches its responsibilities with an open mind and willing ear to all views since it is well aware of the fact that change does not necessarily mean progress.

Mr. Krebs is chairman of the AEVH-AAWB Braille Authority and librarian at the Jewish Guild for the Blind, New York City.

Current Literature

A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

Stealing From the Blind, by Marjorie Boyd. *The Washington Monthly* (1150 Connecticut Avenue, N. W., Washington, D. C. 20036), Vol. 4, No. 10, December 1972, pp. 27-36. Detailed report on the difficulties that the Blind Vendors Program is experiencing with government employee unions.

Some Needs Created by Blindness, by Doreen W. Winkler. *The Rehabilitation Teacher* (The National Braille Press, Inc., 88 St. Stephen Street, Boston, Massachusetts 02115), Vol. 4, No. 10, October 1972, pp. 3-20. Text of a paper presented at the meeting of the Ontario School for the Blind Alumni Association, July 1972, in Canada.

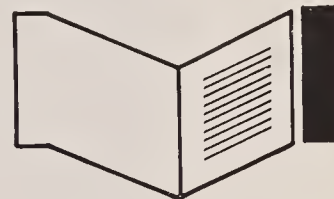
The author discusses the psychological needs of blind people and their families.

Word Imagery Modalities and Associative Learning in Blind and Sighted Subjects, by Allan Paivio and Hymie W. Okovita. *Journal of Verbal Learning and Verbal Behavior* (Academic Press, Inc., 111 Fifth Avenue, New York, New York 10003), Vol. 10, No. 5, 1971, pp. 506-510. Congenitally blind students from the Ontario School for the Blind in Brantford, Ontario, were matched with an equal number of sighted students from London, Ontario, schools in paired-association word-list tests on nouns rated as high or low in auditory and visual imagery.

A Computer-Aided Multisensory Instruction System for the Blind, by Vladimir Slamecka, Alton P. Jensen, Miroslav Valach, and Pranas Zunde. *IEEE Transactions on*

Bio-Medical Engineering (Institute of Electrical and Electronics Engineers, Inc., Box A, Lenox Hill Station, New York, New York 10021), Vol. BME-19, No. 2, March 1972, pp. 157-160. The authors are with the School of Information and Computer Science, Georgia Institute of Technology, Atlanta, where the Audiographic Learning Facility is being developed. The kinetic-graphic content of the program is displayed to the blind individual through the use of an electro-mechanical pantograph which automatically guides the hand.

An Analog Data Storage System for a Reading Machine for Blind Readers, by John M. Davis and Paul A. B. Radcliffe. *IEEE Transactions on Bio-Medical Engineering* (see address above), Vol. BME-19, No. 6, November 1972, pp. 415-421. Description of an experimental optomechanical data store de-



OPTISCOPETM

ENLARGER

A **NEW** MEDICAL INSTRUMENT
for the **LEGALLY BLIND** and **PERSONS** with **LOW VISION**.
A **NEW** MOTIVATIONAL AID for **LEARNING**.



- clear image
- full color and black and white
- completely safe
- portable
- low cost

\$295⁰⁰

C.O.D./f.o.b. Hempstead, N.Y.

New help for the legally blind. The OPTISCOPE ENLARGER makes reading a pleasure once again by displaying large areas of type. It holds books or newspapers of any size, and reproduces in full color and black and white.

The OPTISCOPE ENLARGER is a low maintenance, portable (weighs only 14 pounds), precision instrument designed for years of service.

For ordering, or for more information, write or phone:

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

sign aimed at obtaining high-speed spoken output. The authors feel that though the design is technically feasible, the component costs need to be reduced.

Computer Braille in the Atlanta School System, by Marion P. Boyles. *The Seer* (Pennsylvania Association for the Blind, 2843 N. Front Street, Harrisburg, Pa. 17110), Vol. 43, No. 2, Summer/Fall 1972, pp. 14-

18. Report by the director of the Computer Braille Project of the Atlanta Public School System. The automatic braille production process is currently using an adaptation of the DOTSYS III program developed at the Massachusetts Institute of Technology.

Blind Blaze First Aid Trail. *The Seer* (see address above), Vol. 43, No. 2, Summer/Fall

1972, pp. 10-12. The Lancaster County Chapter of the American Red Cross in cooperation with the Lancaster County Branch of the Pennsylvania Association for the Blind conducted a trial training program for a class of 11 visually handicapped persons, some of whom were totally blind. They received both textbook training and practical experience in first aid principles and procedures.

In Brief



■ Vacations and Community Services for the Blind, New York City, recently received a \$30,000 grant from the Lucy Wortham James Memorial, New York Community Trust, for the purpose of extending its neighborhood programs for elderly blind persons to three additional communities in the metropolitan area.

■ At its fifth Quinquennial Conference, held last summer in Madrid, the International Council for the Education of Blind Youth changed its name to the International Council for the Education of the Visually Handicapped. The new chairman, elected at the conference, is Jeanne R. Kenmore, Ph.D., who is director of the Europe-Northwest Africa Regional Office, American Foundation for Overseas Blind, Paris.

■ The Committee on Disabled Veterans of the President's Committee on Employment of the Handicapped (Washington, D.C. 20210) has begun distribution of a public education folder containing posters and sample pamphlets to aid agencies and individuals in promoting the employment of disabled veterans. It is available on request from the President's Committee.

■ In order to reflect its current philanthropic goal of improving health, social, and developmental programs for children during the critical period of early life, the Association for the Aid of Crippled Children has changed its name to the Foundation for Child Development.

■ A pre-vocational and adjustment training program for visually handicapped adults is now in its second year of operation at North Central Institute, a 1,500-student vocational-technical school in Wausau, Wisconsin. Four professionally prepared instructors are employed in the areas of orientation and mobility, communications, and home and personal management. Designed to accommodate ten students at a time or about 20 each year, the program provides comprehensive rehabilitation services that students need to function effectively in society and to compete successfully in the occupational world, according to instructor Stephen Sanford. Students are integrated as fully as possible into the total environment of the campus. The program, a pilot project being conducted in coordination with the Wisconsin Division of Vocational Rehabilitation and the Wisconsin Board of Vocational, Technical, and Adult Education, began by serving only the north-central portion of Wisconsin, but it has now been expanded to serve the entire state.

■ The Terre Haute, Indiana, Newspaper Guild Local 46 presented its first Headliner Award, honoring a leading community citizen, to Mrs. Ozonator Green, director of a local community center from 1950 to 1970, and now a visually handicapped participant in the federally-funded Foster Grandparent Program.

■ In a move to serve its clients' needs for increasingly specialized and individualized services, the New York Association for the Blind, New York City, recently reorganized its Psychological Testing and Rehabilitation Counseling and Placement Services. The psychological services will be coordinated under the supervision of Dr. Robert J. Adrian, consulting psychologist and associate professor in the educational psychology department, Queens College. Rehabilitation counseling and placement will be under the supervision of Bert Zimmerman, senior counselor at the Sheltered Workshop and Lighthouse Industries for the past two years.

■ The new edition of the braille anthology, *Expectations*, edited by Betty Kalagian, has been published by the Braille Institute of America (741 North Vermont Avenue, Los Angeles, California 90029). This 124-page anthology of current children's literature, including eight books, two original stories, seven poems, two pages of embossed pictures, and a page of "microfragrance" labels, is being distributed free of charge to 3,000 blind children in grades three through six. An additional 300 blind students in 24 foreign countries are also to receive it. The material included in the book does not duplicate stories already available in braille or recordings through the Division for the Blind and Physically Handicapped, Library of Congress.

Sensi-Quik

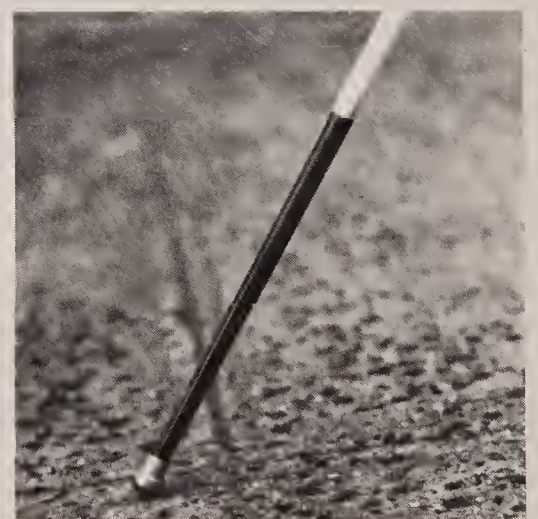
The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

■ The Blinded Veteran Association (BVA) and the U.S. Veterans Administration (VA) have formally entered into an agreement whereby the BVA will establish and conduct a Field Service Program to augment VA services to blinded veterans. The program will be headed by a BVA national field service director, based in the BVA national headquarters in Washington, D.C., who, with the assistance of three field representatives in geographically dispersed locations, will contact blinded veterans, especially young Vietnam-era veterans, act as catalysts in bringing them together with local community services, and otherwise assist them to become fully rehabilitated and to assure their return to an active and productive life. The director and field representatives of the program will themselves be blinded veterans.

■ Teaching aids in large type, including 52-card sets of capital letters and lower case letters, posters of capital and lower case letters, and a card set of 75 everyday words, are available from Krasinsky Productions, 343 Lexington Avenue, New York, New York 10016. A descriptive brochure and price list is available on request.

■ Last September, ceremonies were held to mark the twentieth anniversary of the transfer of the remains of Louis Braille to the Pantheon in Paris. About 150 representatives of French organizations for the blind, the French government, the World Council for the Welfare of the Blind, and 15 foreign countries were in attendance. A memorial mass was also said at Braille's birthplace, Coupvray, a small village near Paris. The ceremonies were organized by the French National Association for the Welfare of the Blind.

■ The Braille Service (59 York Street, Lexington, Massachusetts 02173) is a professional braille transcribing and typing service, staffed by certified braillists, which prepares braille materials on request for fees comparable to those charged by professional secretarial services available to sighted persons. Charges are by the braille page, plus materials. The director of the

Braille Service, Mrs. Joan B. Rose, emphasizes that the organization is not in competition with voluntary braille producers, and that its charges are for the added convenience of speed, accuracy, and prompt delivery.

■ The Idaho State School for the Blind, Gooding, is being reorganized to provide visually handicapped, blind, and multiply handicapped students throughout the state with either a residential or non-residential school curriculum, including materials. Specially trained staff will include an administrator to supervise and correlate the work of the school and the resource and itinerant programs of the state; a media coordinator; additional teachers in residence at Gooding, including teachers of the multiply handicapped; and resource and itinerant teachers who will travel the state to provide supportive services to students attending school in their home communities.

In a recent policy statement concerning the education of the visually handicapped in Idaho, the State Board of Education said: "This statewide educational program is to provide each visually handicapped student an opportunity to compete with his sighted peers in the same quality program with adaptations to his specific needs. Diagnostic and remedial work in the academic areas to effect early re-entry into the mainstream of education will be emphasized."

■ As a part of its efforts to integrate handicapped and destitute persons into the mainstream of society, the National Welfare Services of Nigeria has conducted a census of beggars and destitutes in Lagos, the federal capital. More than 5,000 such persons were identified there and many were physically handicapped. The total for the whole Federation was estimated to be roughly 2,250,000. Full employment of all disabled and destitute Nigerians is the goal of the campaign.

■ After being in existence for one year and after many favorable reports, the experimental Xerox Corporation program of allowing 20 employees a year to take up to a year's full-pay leave to pursue self-selected social welfare projects, is to be con-

tinued for a second year. Selection is carried out by a seven-member employee evaluation committee. Upon completion of leave, employees may return to the same or equal jobs with the same pay, responsibility, status, and opportunity for advancement at Xerox.

■ The Industrial Home for the Blind, based in Brooklyn, New York, is currently training blind persons for employment as telephone switchboard operators-receptionists using a new light-sensitive probe with a push-button, cordless switchboard. The one-year program is being conducted under a training services grant from the U.S. Social and Rehabilitation Service which can be used to train up to 20 persons. The grant also provides funds for both the probes and the special headsets through which the probe sounds a tone indicating that a push-button is lit. This equipment, developed by the New York Telephone Company for the New York State Commission for the Visually Handicapped, is given to the individual upon placement in a job, thus absolving the employer of an extra expenditure.

■ Representatives of dog guide associations from Australia, Belgium, France, Great Britain, Holland, Italy, Japan, South Africa, Spain, and Switzerland met last summer in Cannes, France, to exchange information on the dog guide movement. As a result, an international secretariat is to be established, operated, and funded by the British Guide Dog Association in conjunction with the Dutch organization. Each of the participants was encouraged to approach national authorities to grant reciprocal privileges between countries to dog guides, particularly universal free fare on public transportation and easing of quarantine regulations. A major function of the secretariat will be the exchange of information between countries having well-established dog guide associations and those just instituting such a program.

■ Paw Print Gardens (27 West 150 North Avenue, West Chicago, Illinois 60185), a garden pet cemetery, offers grave sites free of charge to all K-9 dogs and "seeing eye" dog guides. A descriptive brochure is available on request.

Appointments

■ U.S. Department of Health, Education, and Welfare: **Thomas K. Glennan, Jr.**, director, National Institute of Education; **John R. Ottina**, acting commissioner, Office of Education.

■ Regional libraries for the blind and physically handicapped, new regional librarians: Denver, **James Schubert**; Wayne County, Michigan, **Mrs. Eunice Tuttle**; New York City, **Alar Kruus**; Pittsburgh, **Mrs. Susan Murdoch**; Milwaukee, **Mrs. Virginia Lubin** (acting).

■ Library of Congress, Division for the Blind and Physically Handicapped: **Mona M. Werner**, head, Selection Section.

■ Charlotte (N.C.) Workshop for the Blind: **Voris Brookshire**, acting executive director.

■ National Industries for the Blind: **Deacon Miller** (duties in the consumer marketing area, expansion of the commissary program, and development of a new exchange program); **James O'Connor**, manager, SKILCRAFT Services; **William J. Hughes**, manager of health care products.

■ National Society for the Prevention of Blindness, New York City: **Shel Sukoff**, director of public relations and development; **Lydia Maguire**, associate director of public relations.

■ U.S. Veterans Administration: **Dr. William S. Klein**, director, Extended Care Service (comprising the VA's audiology and speech pathology, blind rehabilitation, domiciliary, nursing home care, hospital-based home care, and state home programs).

■ Committee for Purchase of Products and Services of the Blind and Other Severely Handicapped, new member: **Thomas K. Richards**, Irvington-on-the-Hudson, New York (a totally blinded veteran of World War II).

■ The Seeing Eye, Morristown, New Jersey, members of the Grants Advisory Council: **Georgie Lee Abel**, professor of special education, California State University, San Francisco; **Frederick C. Blodi, M.D.**, professor of ophthalmology, University of Iowa, Iowa City.

Awards

■ 1972 Luisa Gross Horwitz Prize: **Stephen W. Kuffler, M.D.**, Robert Winthrop Professor, Harvard Medical School (for "outstanding experiments" involving the functional organization of the retina and the visual system, among other areas).

■ Hektoen Silver Medal, Section on Ophthalmology, American Medical Association: **Paul Bach-y-Rita**, Smith-Kettlewell Institute of Physical Sciences, San Francisco (for research in sensory substitution to circumvent the problems of blindness and deafness).

■ Francis Joseph Campbell Citation and Medal, Round Table on Library Service to the Blind, American Library Association: **Frederick A. Thorpe, O.B.E., J.P.**, London; **Keith W. Jennison**, New York City—both for their pioneering work in the development of books in large print.

■ National Industries for the Blind, Peter J. Salmon Award (Blind Worker of the Year): **Mrs. Maezell Sullivan**, Talladega, Alabama; R. B. Irwin Award: **John L. Parker**, former manager, Charlotte (N.C.) Workshop for the Blind.

■ National Society for the Prevention of Blindness, Honorary Member: **Mrs. Maud Ward**, former supervising consultant, Eye Treatment Program, Indiana State Department of Public Welfare, and one of the founders of the Indiana Society for the Prevention of Blindness.

■ L. L. Watts Award, Virginia Chapter, American Association of Workers for the Blind: **Mrs. Evelyn McCreedy**, Roanoke, former rehabilitation teacher (now retired), Virginia Commission for the Visually Handicapped.

Coming Events

March 15-17 Association for Children With Learning Disabilities, 10th International Conference on Learning Disabilities, Detroit.

March 18-21 Congress of New England Council of Optometrists, Boston.

March 29-30 American Medical Association, 26th National Conference on Rural Health, Dallas.

March 30-April 3 National Science Teachers Association, Detroit.

April 8-14 National Library Week.

April 11-13 National Society for the Prevention of Blindness, National Conference, New York City.

April 22-28 Council for Exceptional Children, 51st Annual International Convention, Dallas.

April 25-26 American Geriatrics Society, 30th Annual Meeting, Beverly Hills, California.

May 3-7 Association for Research in Vision and Ophthalmology, Annual Spring Meeting, Sarasota, Florida.

May 7-10 National Braille Association, National Conference, San Francisco.

May 21-26 International Center of Social Gerontology, Fourth International Training Course ("Applied Gerontology: Recruitment and Training of Personnel"), Oslo, Norway.

May 27-30 Medical Library Association, Kansas City, Missouri.

May 27-31 National Conference on Social Welfare, 100th Annual Forum, Atlantic City, New Jersey.

May 28-30 American Ophthalmological Society, 109th Annual Meeting, Hot Springs, Virginia.

May 28-31 American Orthopsychiatric Association, 50th Annual Meeting, New York City.

June 6-8 National Public Relations Council, Public Relations Institute, Chicago.

June 10-14 Special Libraries Association, Pittsburgh.

June 18-29 Workshop in Rapid Reading of Braille, Culver-Stockton College, Canton, Missouri.

June 23-27 American Medical Association, 122nd Annual Meeting, New York City.

June 24-28 Israel National Society for Rehabilitation of the Disabled, International Symposium on the Disabled Adolescent, Bat Yam, Israel.

June 24-30 American Library Association, Annual Convention, Las Vegas.

June 25-29 American Home Economics Association, Atlantic City, New Jersey.

June 27-30 American Optometric Association, 76th Annual Congress, San Francisco.

July 22-25 American Association of Workers for the Blind, Biennial Meeting, Cleveland.

August 14-18 Blinded Veterans Association, 28th National Convention, Atlantic City, New Jersey.

NOW SHE CAN READ...



and write with ease. With the Visualtek Read/Write System, the partially sighted person easily reads books, magazines, newspapers, and other types of printed materials. Its simple controls are "human engineered" . . . **Out front where they belong** . . . for fast adjustment, writing, typing, and even viewing blackboards and wallcharts!

Hundreds of Visualtek systems are now being used on the job, at home, and in schools by people from all walks of life — teachers, homemakers, lawyers, rehabilitation counselors, businessmen, students, etc.

Why did they choose the Visualtek way? Highest magnification (up to 60x); excellent contrast and enhancement of print; lightest in weight; options designed to meet their needs; and, significantly Better Service.

Write or phone today for information and the location of your nearest Visualtek representative.

VISUALTEK

1901 Olympic Blvd. — Santa Monica — Calif. 90404
Phone (213) 829-3453 or 870-8006

HELPING THE PARTIALLY BLIND TO BECOME PARTIALLY SIGHTED

New From AFB

BLINDED VETERANS OF THE VIETNAM ERA

Robert Lee Robinson, Editor

What is happening to the young veterans blinded in Vietnam?

Who are they and what are the problems they face?

What services are they receiving? and from whom?

What services do they need?

What services do they want?

These are difficult questions, but solutions to the problems faced by these young men cannot be expected unless they are asked again and again—and answers found.

Blinded Veterans of the Vietnam Era is the result of the first attempt to confront these questions head on. The editor, himself a blinded veteran (World War II), identifies the issues and presents a profile of these young blinded veterans. But most important is his summary of a 1972 conference on this subject where the many complex problems involved and the roles being played by the Veterans Administration, the Blinded Veterans Association, and other professionals in the field of work with blind persons in finding solutions were revealed. An outstanding feature of the conference was the active participation of blinded veterans themselves.

Mr. Robinson is a research associate in the Research Department, American Foundation for the Blind.

Publication date: April 1973 □ vi + 33p. □ \$2.00

Payment must accompany all orders totaling \$6.00 or less.

Order from:

**Publications Division, American Foundation for the Blind,
15 West Sixteenth Street, New York, New York 10011.**



THE NEW Outlook FOR THE BLIND

April 1973 Volume 67 Number 4

Auditory Maps: An Orientation Aid
for Visually Handicapped Persons

Bruce B. Blasch, Richard L. Welsh, and Terry Davidson

Action on Issues

Harold Lewis, D.S.W.

Some Aspects of Welfare Services
for Blind Persons in Japan

Howard Robson

THE NEW Outlook FOR THE BLIND

April 1973 Volume 67 Number 4

Articles

- 145 Auditory Maps: An Orientation Aid for Visually Handicapped Persons
Bruce B. Blasch, Richard L. Welsh, and Terry Davidson
- 158 Braille Tests With Tactual "Response Buttons" Allow for Unaided Test-Taking
Terry Davidson
- 161 Making Mobility Meaningful
Alvin E. Vopata, M.A.
- 168 Action on Issues
Harold Lewis, D.S.W.
- 175 Some Aspects of Welfare Services for Blind Persons in Japan
Howard Robson

Departments

- 181 Comment—Integrating Blind With Sighted in Senior Citizen Centers—*Judith Justice*
A Declaration of Independence for Geriatric Blind Persons—*Robert L. Lessne*
- 182 Current Literature
- 189 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to 75c according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief

M. Robert Barnett

Managing Editor

Patricia Scherf Smith

Associate Editors

Mary Ellen Mulholland
Michael E. Monbeck

Auditory Maps: An Orientation Aid for Visually Handicapped Persons

ABSTRACT: Auditory maps, recorded on cassette tapes, can be used to provide a visually handicapped person who is fully trained in the use of long-cane or dog-guide mobility skills with a verbal description to orient him to a specific travel area (district map) or step-by-step instructions to guide him to a particular objective (route map). It is suggested that the information included on such maps can best be prepared by an orientation and mobility specialist and that the content of the map can be best expressed using one or more of the following orientation reference systems: ego-centric, topo-centric, cartographic, and polar-centric. Suggestions are made for the use of specific mobility techniques and recordings of particular sound cues that might be encountered. Sample scripts for auditory district and route maps are included. The relative merits of auditory vs. other types of maps are fully discussed, as are the wide variety of potential uses of such recorded travel aids.

The problems of orientation, the acquisition of environmental concepts, and familiarization to new areas have been of great concern to those involved in independent mobility for visually handicapped travelers. Attempts to develop aids for orientation have primarily dealt with the construction materials and the particular symbols used in the production of haptic maps. Evidence of this emphasis was indicated by the October 1972 issue of the *New Outlook for the Blind*, which was devoted to the topic of haptic maps for visually handicapped persons. Yet, these investigations have elicited statements to the effect that the utility of haptic maps would be enhanced by a verbal supplement (Kidwell & Greer, 1972; Bentzen, 1972; Berlá, 1972). In contrast to viewing verbal presentations as supplemental, the intent of this article is to suggest that verbal presentations, in the form of auditory maps, can be used as orientation aids in their own right. In general, an auditory map can be defined as a tape-recorded verbal description of a particular route or geographical area and a presentation of the landmarks relevant to orientation and independent travel. An auditory map for visually handicapped persons would contain additional elements, such as having the directions and descriptions expressed in a terminology which is relevant for blind travelers and incorporating recorded examples of actual auditory landmarks that may be encountered.

When a visually handicapped individual is involved in receiving orientation and mobility instruction, information about an unfamiliar area is provided to him by his instructor through the use of the "familiarization lesson," an integral part of a comprehensive mobility program. Such a lesson involves the orientation and mobility specialist describing the area or route and instructing the student in selecting and utilizing the landmarks that are available. Even though the instruction is offered in a specific geographical area, the nature of the instruction is designed to permit maximum transfer-

BRUCE B. BLASCH
RICHARD L. WELSH
TERRY DAVIDSON

All three authors are orientation and mobility specialists and are in the Department of Special Education and Rehabilitation, School of Education, University of Pittsburgh—Mr. Blasch as a lecturer, Mr. Welsh and Mr. Davidson as doctoral candidates in rehabilitation counseling.

The Problem

Person-to-person instruction

ence and generalizability to other areas which the visually handicapped traveler will later encounter. To be able to describe an area in terms which are meaningful and useful to a blind traveler is one of the skills and competencies of the professional orientation and mobility specialist which separates him from the man on the street who may describe a route or the location of an objective in terms which are not relevant to the skills of the blind traveler. An untrained person may point and say, "The drugstore is straight ahead and is next to the store with the green awning." It is obvious that such a description is not useful for a blind traveler.

However, when the visually handicapped traveler leaves the school or rehabilitation center to return to his home area, he generally must depend on untrained people to orient him to new areas around his home or place of employment. Even before the blind student completes the program he is sometimes not able, without the use of some sort of aid or device, to completely memorize the routes which have been properly described to him. Both of these situations, therefore, point to the need for some type of map or orientation aid for blind travelers.

The idea of maps for blind travelers was discussed in some detail by J. A. Leonard (1967), who suggested that all maps including those for blind travelers can be analyzed and evaluated on the basis of several characteristics: form, content, detail, portability and hardware. The concept of an auditory map can be developed and explained through the consideration of these same characteristics.

□ Most of the maps previously developed for blind travelers have been *spatial* maps, basically the same as visual maps but presented in some raised form that can be interpreted haptically. Some of these spatial maps use raised lines, while others have been constructed out of various types of materials such as felt, blocks, sandpaper, etc. However, tactual maps possess a range of shortcomings including difficulty of production, limited detail, and the level of haptic skill required to read them. These shortcomings are adequately described by Leonard (1967) and referred to by Bentzen (1972) and Kidwell and Greer (1972).

A second possible form is a *verbal* map, a description of a route or a district in words. Leonard (1967) described a verbal map that was written in braille and consisted of a series of directions to be followed at the end of each block. Leonard and Newman (1970) discussed a further refinement of the verbal map consisting of a disc approximately five inches in diameter with a cursor assembly mounted over concentric rings of directional information in braille. The disc was divided into segments each with a set of braille directions in a coded sequence. The cursor could be moved after each segment was read, so that the traveler could maintain his position on the disc.

The *auditory* map is also verbal and is somewhat similar to a written map. However, the auditory map will be shown to be more flexible, capable of greater detail, more easily produced, and more generally applicable to a wider variety of clients and in a wider range of conditions. In addition, the form of the auditory map is not novel to the individual who has learned to travel in

Further help needed

Map characteristics

Types of Maps

Verbal map

Auditory map

a comprehensive mobility training program. The verbal descriptions and directions which are recorded on the cassette are identical in form to the descriptions and familiarizations which the blind traveler receives from the orientation and mobility specialist during his training. Once the individual has learned how to operate the cassette recorder, he has no other new skills to learn in order to be able to use an auditory map: he does not have to learn a coding system, he does not have to know how to read braille, and he does not have to learn how to use an overlay grid system.

Before going any further, it is important to caution the reader very strongly about the use of auditory maps. An auditory map is a device which a client who is *already trained* in mobility skills can use for orientation to an unfamiliar area. It is *not* suggested that auditory maps can be used for developing a self-taught system of orientation and mobility. It is *not* expected that the use of auditory maps will necessarily shorten the time required for orientation and mobility training. Rather, the use of auditory maps can only be helpful if in fact their use follows upon the participation of an individual in a comprehensive training course, whether it be in a program which uses the long cane technique or one using dog guides.

□ The content of auditory maps can vary, depending upon the needs and level of skills of the individual using them. One type, the *route* map, is a description of a specific route with a specified starting point and leading to a particular objective. Such a map will usually include very concrete directions and suggestions for traveling that route. The second type is the *district* map, a description of an overall area, such as a downtown area, a particular neighborhood, or a college campus: the traveler can then plan his own routes using the information presented. The district map, like the route map, can vary in the level of specificity and detail which are presented. An indoor auditory map might be used to present a series of directions for following specific routes within a building or to describe the general layout and floor plan of the building from which the user of the map can extrapolate the routes he needs. Different uses of the route vs. the district map will be discussed later.

While the amount of detail that can be incorporated in a tactual map is quite definitely limited by the size of the map, the materials used, the simplicity or complexity of the coding system, and the haptic skills of the user, the detail possible in an auditory map is limited only by the precision of language and the amount of information which the individual can usefully absorb. As was suggested above, some travelers may desire or need considerably more detail and specific directions to enable them to travel a route, while others may only need rather general descriptions of an area.

□ To a certain extent, the amount and type of detail included in an auditory map is dependent upon the orientation processes which are used by those travelers for whom the map is intended. For the purpose of discussion, it is helpful to indicate four orientation processes which relate to the detail contained in auditory maps. Using the most basic process, an individual relates the environment to his own body, an *ego-centric orientation*, with the basic terms being right, left, in front of, and behind. Although all travelers, and

Advanced training required

Types of Auditory Maps

Amount of detail

Four Orientation Processes

Ego-centric

similarly all auditory maps, utilize this terminology, an individual who relies solely on ego-centric orientation will have considerable difficulty organizing his spatial environment since ego-centric orientation by itself lacks any objective or permanent stability. However, it is conceivable that an auditory route map could be constructed for a limited traveler utilizing ego-centric orientation and some limited landmarks.

The use of landmarks implies that the traveler can employ a second type of orientation process which involves relating his position and the position of other aspects of the environment to an objective and identifiable information point. This process of orientation, which can be referred to as *topo-centric orientation*, is essential to independent travel in any environment and is the foundation for much of the information which is included in an auditory map. A blind child who is beginning to develop spatial concepts will organize the environment of his home in relation to certain identifiable auditory, tactual, olfactory, and thermal clues. The child will become oriented in his environment as he relates his position to the street noise or the warmth of the sun which are consistently identified with one particular side of the house, and he may develop an awareness of the position of some objects such as his toy box as it relates to the sound of the television or the refrigerator motor. As a blind traveler moves through the environment he must obtain a fix on each of a series of landmarks all of which can be represented on an auditory map of the kind described here.

Topo-centric

As the visually handicapped traveler moves out of the limited environment of his own home and into larger and unfamiliar areas, he encounters the need to develop and use other concepts. If all objectives in a community or even within one building were randomly placed without a definable relationship to each other, all travelers, both sighted and blind, would have considerable difficulty in communicating the location of specific objectives. Because of the impracticality and inefficiency of such a situation, man has generally organized his environment in recognizable patterns. In a town or city, streets are usually arranged in some type of grid pattern, which results in the block becoming one of the basic concepts in understanding the pattern. Each street is assigned a permanent name and each structure on the street is numbered, often using a system which identifies the block, resulting in an easily communicated way of pinpointing the location of any objective in the community. Similarly, the floor plan of almost every building resembles certain geometric patterns, the understanding of which is helpful in establishing the location of objectives within the building. To the extent that the visually handicapped traveler can comprehend and utilize the concepts related to the organized structures of man-made environments, he can be considered to be demonstrating a third orientation process, *cartographic orientation*. Even though this type of orientation is useful for sighted travelers, it is even more essential for blind travelers who cannot utilize the visual clues that the sighted traveler depends upon. The blind traveler must not only remember the address of his objective, but he must also remember the number of other streets along his route as well as their relationship to each other, as well as his present posi-

Cartographic

tion relative to the streets. This type of information will be essential in auditory maps for most independent travelers. The major purpose of district auditory maps is to communicate verbally the overall layout of the city, campus, or building which is being described. The use of district maps requires the ability to utilize cartographic orientation.

Extending beyond the street plans of cities, but also relating to their understanding and utilization, is the universally shared method of orientation based on the location of the North Pole. Although some people question the utility of an abstract system of compass directions for blind travelers, the point bears repeating that the blind traveler's lack of visual clues indicates the need for additional information to aid in making his orientation in space more stable and communicable. The use of compass directions can be considered a fourth orientation process and can be referred to as *polar-centric orientation*. Auditory maps can include references to compass directions for the most efficient and complete method of locating specific objectives and for the purpose of contributing to the development of stable spatial concepts.

None of these four methods of orientation are very useful when considered independently of one or more of the other methods. However, for some travelers, auditory maps will have to be constructed using only the most basic orientation concepts, probably in conjunction with specific route maps. An indication of the flexibility of auditory maps is that such individualization is possible. In making maps for areas which may be used repeatedly by a number of blind travelers, the most detailed type of description may be the most appropriate. However, before these maps can be given to individuals there should be some evaluation of that particular individual's level of competency and some determination (made by a professional orientation and mobility specialist) of whether or not the maps available in that particular location can be suitably and profitably used by that individual. In cases where a particular set of maps for a college campus may be beyond the abilities of the particular traveler who will be attending that college, more simplified maps may have to be constructed.

□ The type and quantity of information to be included in an auditory map is also guided by the concepts, patterns, and landmarks of orientation which exist in the area being mapped and which are useful for the blind traveler. The auditory route map can include cautions about specific danger situations which might be encountered and suggestions for particular cane techniques or alignment procedures that are called for in certain situations. This latter type of information cannot usually be incorporated in a haptic map.

The district map initially presents the names of streets and a description of the street patterns of the area, concepts related to cartographic orientation. Most areas will resemble or relate to the basic grid pattern, a fundamental concept of orientation for the visually handicapped (Eisenberg, 1968). The basic grid consists of a series of east-west streets which are intersected by a series of north-south streets. While the neighborhoods in some cities conform directly to this pattern, most areas incorporate deviations from this pattern, such as diagonal and curved streets, T-intersections, and the like. However,

Polar-centric

Combining orientation methods

Information to Include

Description of an area

exceptions to the basic pattern cannot be understood unless the pattern itself is understood. Nearly every district can be conceptualized in terms of the grid pattern, with the exceptions described in terms of the manner and the extent to which they deviate from that pattern.

Once an auditory district map has provided a traveler with a verbal overview of the area, it may or may not go on to describe some of the more specific clues and landmarks necessary to navigate in that area. The map may include statements about the amount or the direction of traffic flow on particular streets to help the traveler distinguish one street from another. A district map may also describe the location of some of the important stores, residences, bus stops, and points of interest by stating the street on which the objective is located, the two intersecting streets which indicate the particular block, the side of the street it is on, and finally the exact location of the objective in relation to some other landmark within that same block. For example, in locating the third store from the corner, a traveler may identify the store openings by using his hearing, if the entrances are somewhat recessed from the building line; but he sometimes must trail more carefully using his cane or his free hand. Some objectives may be more easily located relative to a particular sound source, a distinctive smell, or a tactual difference in the sidewalk. Information about appropriate technique is easily included in an auditory map, but impossible to include in a tactual display. These examples illustrate the complexity of locating some particular objectives in the environment and reinforce what was said earlier about the advantages of the traveler being able to use all of the four orientation processes. To locate a store in a particular area using the district map may require that the traveler use cartographic, polar-centric, topo-centric, as well as ego-centric orientation. If a particular traveler is not able to use all of these processes, then he may need to depend upon the assistance of sighted pedestrians to give him more specific directions once he gets into the general area that he desires, or he may need a more detailed route map to get him to that particular objective.

A district map may be adequate for a more competent traveler who will be able to select his own routes from the general description of the area. Such a traveler can be expected to handle the typical situations which might occur along the course of the route; he may not have to study the map in detail; and he may or may not have to carry the map along with him on the route.

□ The amount of detail incorporated in an auditory map may also be a function of the purpose for which it is being used and the user's level of skill. Sometimes an auditory map may be used by a traveler who has difficulty in orientation to a specific route, either because of his general shortcomings in the area of orientation or because of the unusual difficulty of the route which he must learn. An auditory route map, therefore, must often be a very detailed description of how to get from starting point A to objective B. The use of the map may reinforce the learning of the route through frequent reminders about the names of the streets behind and in front of the traveler, and the direction in which the traveler should be walking. Such a detailed presentation may also include specific directions for the traveler to carry out each time he

Specific clues and landmarks

Sensory clues

Route Map

comes to the end of the block. When turns are necessary, the map may describe them using compass directions and/or left-right terminology. A map at this level of detail will also include a specific description of the return route from objective B to starting point A. This type of map can be used to study and review the route before attempting to negotiate it, or it can be taken along as the individual travels the route to provide step-by-step instructions as necessary. Such a detailed presentation might also include extra landmarks and clues to assure the traveler that he is still on the correct path, especially after a crossing or a turn has been required. It might also include cautions about possible areas where confusion might arise and suggest recovery procedures if the traveler should become disoriented in a specific location.

One final consideration related to the amount of detail to be included in an auditory map concerns the use of such maps to enrich the amount and type of information which the individual receives about the environment. Over and above the information necessary for safe and efficient independent travel, an auditory map may include descriptions of the environment which would be designed to aid the traveler's appreciation of aesthetic, cultural, and historical aspects of the environment. While it is not essential to the safety of a blind traveler to know that the building he is passing is 12 stories high and is the first example of modern architecture in the city, such facts are available to the sighted and may be of value for some blind travelers. Some preliminary work with this type of *enrichment* tape has been piloted by Robert Kalchthaler of the University of Pittsburg (Kalchthaler, Jeffers, & Jeffers, 1968.)

□ At this point it may be helpful to look at examples of segments of auditory maps as the most effective way to communicate some of these concepts. The following is an example of a district map which might be used by a competent traveler in orienting himself to a particular downtown area.

The major streets in this area conform to a typical grid pattern with the east-west streets (in order from the southernmost to the northernmost) being Oak, Maple, Main, and Walnut; the north-south streets (in order from the westernmost to the easternmost) being First Avenue, Second Avenue, Third Avenue, and Fourth Avenue.

Superimposed on this basic grid is one predominant feature—Centre Avenue. Centre Avenue runs in a north-east—south-west direction, starting from the Oak and First intersection, continuing through Maple and Second and terminating at the Main and Third intersection.

Two minor streets complete the pattern in this area. Smith Street runs north-south from Maple to Main and is parallel to, and between, Third and Fourth Avenue. Poplar Street runs east-west from First to Second Avenue, and is parallel to, and between, Main and Walnut.

The shopping district is centered on the complex (five-street) intersection of Main and Third (Center Avenue enters from the southwest). The majority of important stores (here could be inserted a list of stores and their serial location with respect to the intersection) are situated on Main between Second and Fourth but the post office is midway between Main and Walnut on the east side of Third. The Lo-Cost Supermarket is three doors south of the Main-Centre-Third intersection on the west side of Third.

The bus route through this area is along the southwest-northeast Centre Avenue

Enrichment information

District Map Sample

turning onto the east-west Main Street at the Main-Centre-Third intersection. There is a bus stop at Oak and First, as well as at the Smith and Main intersection.

All intersections along both Main and Centre are traffic-light controlled; other intersections are not. All streets are two-way except Smith Street which is one-way with traffic running north.

Even though some cities are simpler and some more complex, most cities reflect a pattern similar to this. The competent traveler, given that a particular business establishment is located on Maple Street, between First and Second Avenue, and knowing that his bus will take him to Oak Street and First Avenue, can plan his own route from that point to the objective.

□ An example of a route map which could be used within the above area is the following:

Route Map Sample

Instruction 1. The bus will be traveling east along Main and will stop just west of Smith Street. When you come out of the bus on to the sidewalk, turn left so that you are facing in the same direction in which the bus is going (i.e., east). End of Instruction 1. Off.

Instruction 2. Walk east along the southern side of Main until the curb of Smith Street is reached. On reaching the curb make a left turn and approach the Main Street curb in order to cross Main Street from south to north. End of Instruction 2. Off.

Instruction 3. In obtaining a direction for the crossing of Main, line up with the Main Street traffic which should be perpendicular to your proposed line of travel. A parallel traffic flow will not be helpful in establishing a line for this crossing since this is a T-intersection and all traffic coming out of Smith Street will turn on to Main. Start the crossing as traffic starts to move out from Smith Street on your right and complete the crossing to the sidewalk on the northern side of Main. Caution: Because this is a T-intersection you should be especially prepared for cars to be turning across your line of travel as you make the street crossing. End of Instruction 3. Off.

Instruction 4. Turn left and proceed west along Main until you reach the curb at the Main-Center-Third intersection. This curb will be the curb of Third Avenue which runs north-south through this complex intersection. End of Instruction 4. Off.

Instruction 5. Turn right and proceed north along the east side of Third Avenue; this will be noticed to be initially quite definitely downhill. After approximately half a block it will be noticed from the different echo that the buildings are set back further and no longer come right up to the sidewalk. On reaching this open area—the Post Office Plaza—contact the grass shoreline on the right of the sidewalk. End of Instruction 5. Off.

Instruction 6. Trail the grass shoreline until an intersecting pathway is encountered. Turn right (i.e., east) along this pathway and trail its right hand shoreline—do not be disturbed if you feel that you are veering to the right since this pathway is curving gradually to the left. Keep trailing until a set of steps is encountered on the right; at this stage the pathway will have curved to such an extent that you will again be facing north. Turn right and go up the steps to the Post Office entrance. End of Instruction 6. Off.

Further instructions would describe the location of the mail boxes and coun-

ters within the building and another set of instructions would then follow describing the return route. These examples give some general idea of the type of directions and explanations which may be included in this type of orientation aid.

□ The portability of maps for the visually handicapped is just as important as it is for maps for the sighted. Some people have the ability to look at a map once or twice and retain all the information they need; however, most people who are traveling to an unfamiliar area prefer to take their maps along with them to check periodically during the trip. When the dimension of portability is considered, auditory maps prove to be much more preferable than haptic maps. Portability considerations for haptic maps determine with what materials the map may be produced and thus limit the size of the display. The limited size then affects the content, detail, and legibility of the map. Even if the material with which the map is produced is able to be folded, the handling and the reading of the map would probably require two hands, requiring the traveler to stop briefly to read the map, as mentioned by Bentzen (1972). On the other hand, an auditory map recorded on a cassette is a standard size regardless of the complexity of the area or the amount of detail included in the map. Cassette recorders are usually made to be portable with accompanying shoulder straps which allow the hands to remain free. The tape can be rewound and listened to as frequently as necessary, or it can be listened to in segments, with the traveler turning off the recorder and following the instructions in each segment before going on to the next part of the route. The latter technique enables a traveler to maintain his place on the map and along the route, which may be difficult when using tactual maps. This technique, of course, presumes that the auditory map would be broken up into segments in advance by the orientation and mobility specialist who prepared the map, as in the example given above. However, some travelers may prefer to have a continuous flow of descriptions and directions and may prefer to decide for themselves how much of each set of directions they want to listen to at one time. To further assist the user of an auditory map in maintaining his position in the map and in rewinding to hear the last set of directions, a technique suggested by Leonard and Newman (1970) seems to be particularly valuable. In the auditory maps which they used in their study, which will be described later, the beginning of each segment was preceded by two 300-cycle tones and the repeat of the instructions which they provided after each set of instructions was preceded by one 300-cycle tone. If subjects wanted to listen again to the whole of an order or just go back to the repeated directions, they could locate themselves by these signals which could be heard during rewind as 900-cycle "pips." It should be noted that this method of indexing cannot be used with all brands of tape players.

□ Many of the hardware considerations which were discussed by Leonard (1967) in relation to spatial or verbal maps are not a concern in auditory maps. Cassettes and portable cassette recorders are standardized, readily available, and easily operated. The content of the tape must be decided upon by a professional orientation and mobility specialist, but the actual recording can

Portability

Use while traveling

Hardware Considerations

be done by anyone with a voice suitable for quality recording. The problem of making maps that are weatherproof is solved by using a weatherproof case for the cassette machine. In addition, the difficulties which blind travelers experience when trying to read braille or raised-line diagrams when their fingers are cold are eliminated by the use of auditory maps. Earplugs can be used so that the traveler will be able to hear the maps when he is using the recorder in a noisy downtown area. Another advantage of auditory maps is that future alterations or additions in the environment can be incorporated into the map by updating the affected segments without destroying the entire product. If the individual traveler becomes aware of clues along the route which are more meaningful to him, he can add these to the tapes himself.

The advantages of the auditory map are numerous and will probably continue to grow as more experience is gained in their use. Not only do auditory maps solve many of the problems associated with the production and use of tactual maps, but they will also add new dimensions to the practice of familiarizing blind travelers with new areas. Auditory maps are practical, flexible, and easily individualized to suit the needs and abilities of all blind travelers. In situations where a set of auditory maps is made in advance to be used in a particular college, business, or work environment, the clients who are to use them should be evaluated first by a professional orientation and mobility specialist in order to insure that the particular individual's level of skill is commensurate with that which has been presupposed in the making of the maps. In instances where a particular individual does not have enough orientation skills to use the maps that are already available, new and more simplified maps can be easily made for those particular individuals.

□ The use of auditory maps has been investigated by Leonard and Newman (1970) of the Medical Research Council, University of Nottingham (England). In their study three types of maps were prepared: (a) a small disc with coded braille information along with a rotating cursor to help the blind traveler keep his place throughout the different segments of instruction; (b) a tape recording of approximately eight minutes in duration with the routes to be traveled broken down into a number of sections, each section generally covering more than one block; and (c) a spatial diagram showing streets as double lines with the side of the street to be traveled on being a rough line and the opposite side as a smooth line. The spatial maps were thermoformed and mounted on backings that made them less flexible. They were attached to a board and slung over the shoulder.

This research did not set out to find out which type of map was the best or to analyze the results statistically. However, the following comments and observations were made: (1) Two of those completing without error in the taped route were 53 years old, and generally the success distribution across age was more even for the tape group than for the other groups. (2) There was a tendency for those completing without error using the disc or the spatial map to be young. (3) The disc required knowledge of braille and memorization of the code. (4) The tape required relatively little learning of the layout of instructions and information and presented the maximum relevant infor-

Advantages of recorded map

Map Research

Comments and observations

mation in a very conventional form. Also, only the tape method overcame the problems of enabling travelers to check frequently whether they were on the correct route. The tapes provided frequent landmarks and frequent opportunities for the traveler to obtain a fix from clearly identifiable landmarks, while the disc method presupposed that the traveler would be able to continue on the correct course. (5) Spatial diagram maps require tactual sensitivity, appreciation of the particular code, and some spatial concepts (two of the "completers" in this category were congenitally blind, but had been to a school in which surface representation had been systematically taught). (6) Both the disc and auditory maps were small and easy to carry; the spatial map was light but cumbersome and conspicuous. (7) The disc may probably be preferred by the young and highly competent traveler; the tape may be more suitable for older and less competent travelers.

Two pilot studies using auditory maps have been conducted at the University of Pittsburgh. These studies produced favorable, but rather subjective, results, perhaps due to the lack of precision of the items of the evaluative device which was employed. No statistically significant differences were obtained between the use of auditory maps and familiarization provided by an instructor. Fenchak (1971), using blindfolded orientation and mobility specialists in training, and Yeager (1972), using congenitally blind children aged 12 to 19, presented taped route instructions which could be replayed at any time during the attempt to reach a series of objectives. The control groups had the instructions for each successive objective presented entirely before attempting the objective.

□ There appears to be a need for more intensive research into the use of auditory maps employing more appropriate and discriminating evaluation devices and proper statistical control of such variables as age and onset of blindness. Suggested topics are: (1) Questions concerning the type of information needed by dog users, as opposed to cane travelers, should be investigated, since the tape containing the material that is necessary for the latter might contain much that is unnecessary for the former. At the present time it is thought that the extra information which the cane traveler utilizes may prove to have informative value for the dog guide user. However, research may establish that the additional information is detrimental to performance and that the dog guide user needs an auditory map designed solely for his mode of travel. (2) Research could also help determine the optimum length of a single taped instruction for reaching the route objective. Obviously there is a practical balance to be sought between recording the whole route as one single instruction and breaking down the route into minute details necessitating frequent stops. A related, but perhaps more fundamental, investigation could determine whether the verbal content of the map is best broken down by the mapmaker into these clearly defined step-by-step objectives or whether a continuous commentary should be supplied, with the student himself deciding how much can be remembered and attempted at one time. (3) The usefulness of district maps as a function of complexity requires investigation so that different levels of complexity may be established. It is conceivable that

Pilot studies

Research Questions

the basic map will simply relate the primary street layout, while at the other end of the continuum a map covering the same area might include the location of a variety of major stores, buildings, etc., along with the approaches to the entrances of many of these objectives. (4) These maps may also be used in more basic research into the problems of orientation in an attempt to respond to statements such as that by Rusalem (1972) that "orientation to the environment, a problem common to all blind persons, continues to be understood more in terms of conjecture than hard fact" (p. 166).

□ The authors have had experience in using auditory maps for both cane travelers and dog guide users in the Pittsburgh area. In all instances, the travelers were of college age and usually needed specific route information. However, in some instances district maps were also used. In one instance a tape was made which enabled a student, in his first attempt, to complete a rather complex route from his campus dormitory to the bus terminal in downtown Pittsburgh without any error or disorientation. In order to construct a tape giving a low probability of error, it was necessary for the mapmaker to cover the route and make careful notes which would later be used to write a script for the recording of the auditory map. The tape for the dog guide user had no mention of cane techniques, such as trailing or shore lining, and some difficulties were found in suggesting on tape the ways for the dog guide user to locate specific objectives such as an entrance to the building in a completely unfamiliar area. Where a cane traveler might use some of the reflected sounds from the cane tip or the cane itself to trail the shore line for a more specific and exact location, the instructions for the dog guide user involved more estimation and necessitated more contact with the public for the location of specific objectives. Some of these practical difficulties point out the need for the orientation and mobility specialist to have an intimate knowledge of the precise techniques used not only by the cane traveler but also by the dog guide user if he is to attempt to make a set of general instructions for all blind travelers.

It is in the area of multiple usage that the auditory map is likely to make its greatest impact in terms of convenience and economic value. For a college which has in the past oriented students one by one to the campus as best they can by the use of other students, volunteers, or perhaps a professional orientation and mobility specialist, the auditory map may provide an accurate, reliable, and professional service for each incoming student. Again, it should be pointed out that, prior to the use of the map, the student should be evaluated by an orientation and mobility specialist to determine whether or not the student is capable of using the methods of orientation which have been presupposed in the production of the map. If new maps are necessary, the instructor can then make them to coincide with the level of understanding and skills of that particular student. The establishment of an "orientation tape bank" by a college would initially call for some financial outlay, but, having made this investment, students could enter semester after semester and be able to use or reuse the orientation tapes at their convenience. The same advantages would accrue for convention centers, hotels, and other public places.

Experience With Auditory Maps

Multiple usage

Peterman and Holsclaw (1951), although using sighted students, reported on such a use of cassette tapes to orient freshmen to the college library. Students were supplied with taped programs and, in an evaluation questionnaire, mentioned such positive advantages as convenience, ability to repeat portions, and independence, especially with respect to the time at which the orientation could be done.

The compilation of a comprehensive orientation tape bank would require considerable thought at a variety of levels. With district auditory maps used in conjunction with simplified tactual maps the student may be provided with a spatial representation and a description of the layout of (a) streets or paths, (b) buildings and their relation to one another, and (c) corridors and rooms within particular buildings. This combination provides the global picture, while the more specific route maps may fill in the details that are impractical to include in tactual maps. While some students will not progress past the use of route maps, some persons will eventually be able to integrate all three (tactual, auditory district, and auditory route maps) and progress to where they can initiate new routes based on their conceptual formulation of the campus, city, or whatever area is to be traveled.

□ Since few haptic maps exist, the blind person who wants to travel to a new and unfamiliar area must rely upon either the actual guidance of another person, or the instructions formulated and relayed by a person who is not necessarily familiar with the relevant clues and information that a blind traveler needs. Even if he does get good information, he then must rely heavily upon his memory in order to take him into the area. These factors may be a sufficient explanation of why most blind persons do not usually travel beyond the most comfortable routes between their home and two or three objectives. The auditory map may further enable blind travelers who have mastered orientation and mobility skills through completion of a training program to apply these skills in many new areas.

Collections of auditory maps

Conclusions

Bibliography

- Angwin, J. B. P. Maps for mobility—2. *The New Beacon*, 1968, 52, 143-145.
- Bentzen, B. L. Production and testing of an orientation and travel map for visually handicapped persons. *New Outlook for the Blind*, 1972, 66, 249-255.
- Berlá, E. P. Behavioral strategies and problems in scanning and interpreting tactual displays. *New Outlook for the Blind*, 1972, 66, 277-286.
- Eisenberg, P. A. Concept development in preparation for the cane or dog. *Long Cane News*, 1968, 2(4), 12-22.
- Fenchak, R. The use of pre-recorded cassette tapes as an orientation device in mobility training. Unpublished paper. University of Pittsburgh, 1971.
- Kalchthaler, R., Jeffers, R., & Jeffers, K. Audilometry: What It Is—How It Meets Three Important Needs of the Blind. Unpublished paper and slide series. University of Pittsburgh, 1968.
- Kidwell, A. M. & Greer, P. S. The environmental perceptions of blind persons and their haptic representation. *New Outlook for the Blind*, 1972, 66, 256-276.
- Leonard, J. A. Aids to navigation: A discussion of the problem of maps for blind travelers. In *Sensory Devices for the Blind*. London: St. Dunstan's International Conference, 1967.

- Leonard, J. A. & Newman, R. C. Three types of "maps" for blind travel. *Ergonomics*, 1970, **13**(2), 165-179.
- Peterman, E. & Holsclaw, J. Library orientation in a new mode. *Audiovisual Instruction*, 1971, **16**, 46-47.
- Rusalew, H. *Coping with the unseen environment*. New York: Teachers College Press, 1972.
- Yeager, P. Auditory mapping for the visually handicapped. Unpublished paper. University of Pittsburgh, 1972.
-

Editor's Note: To provide interested individuals with an opportunity to evaluate this new concept, the authors have prepared an auditory map for the Biennial Meeting of the American Association of Workers for the Blind, July 22-25, 1973, Cleveland, Ohio. This auditory map contains a comprehensive orientation to the lobby, meeting floors, and guest floors of the Cleveland Statler Hilton Hotel and routes to the dog run and to a few nearby restaurants. Copies of this auditory map will be available at the registration desk during the convention or may be obtained in advance by writing to the Cleveland Society for the Blind, 1909 East 101st Street, Cleveland, Ohio 44106. A \$2.00 deposit, required for the loan of each cassette tape, will be refunded when it is returned to the registration desk. Checks should be made payable to the Cleveland Society for the Blind. Users will be expected to provide their own cassette players. Those who use the auditory map will be requested to complete a short questionnaire prior to the end of the convention to evaluate the effectiveness of the map. The questionnaire itself will involve the use of the experimental testing system developed by Terry Davidson and described by him in the following article.

Sample at AAWB, Cleveland

Braille Tests With Tactual "Response Buttons" Allow for Unaided Test-Taking

ABSTRACT: To enable a blind subject to take tests without the use of a reader or recorder, the author has developed a system for forming a "response button" in the thermoformed plastic sheet on which the questions and choice of responses are reproduced in braille. The response buttons are formed by placing small wooden dowel-plugs on the master braille copy. The blind subject then merely depresses the domed button next to the response of his choice. The tests are re-usable; the dowel-plugs also can be re-used in the making of new tests.

In the past, the usual approach to administering a written test to a blind student or client has been for someone to read the test to him and to record his responses. While this may be thought an expedient solution, the alleged con-

TERRY DAVIDSON

Mr. Davidson is a doctoral student in rehabilitation counseling, Department of Special Education and Rehabilitation, University of Pittsburgh.

venience should be weighed against such factors as dependence on an intermediary, lack of privacy, and the relegation of the blind person to a relatively passive role in the test-taking task. Another commonly used approach is to have the blind person indicate his response by marking the braille letter of the appropriate answer with a pencil directly on the question sheet. Not only does this latter method pose a problem if the person is not adept in using a pencil, but it also does not provide the blind person with any adequate means of checking back over or correcting his responses. Often, in the literature on the administration of tests for blind persons, little attention is paid to this problem and suggestions for dealing with it creatively are seldom made (see, for example, A vocational interest scale administered in braille, 1971; Bauman, 1972).

Recently, in planning for the administration of the Personnel Research Center (PRC) Interest Survey (Scholl, Bauman, & Crissey, 1969) to clients of the Vocational Independence Program, Foundation for the Junior Blind, Los Angeles, the following system was devised. A master copy of the test is transcribed into braille on standard braille paper allowing sufficient room along the right-hand side of the sheet for attaching two columns of domed wooden dowel-plugs. When copies are made of this master sheet using the thermoform machine, the plastic Brailon* sheets have two columns of raised relief "response buttons." In administering the test, the subject is instructed to read the question in braille and then to depress gently (rather than push through) the button next to the appropriate braille answer or response. Scoring is performed by the tester with the use of a clear plastic overlay and, as each sheet is scored, the depressed buttons can be pushed back to their original shape (and the sheet re-used) by pressing them from the back of the sheet with the little finger or a large, round pen top. The dowel-plugs are 3/8-inch wide and produce a button approximately 1/4-inch high. It is possible to produce this raised relief figure using the thermoform machine, although some attention must be given to the settings of time and temperature in order to obtain the best reproduction. With the present "mushroom"-shaped dowel-plugs, settings which produce too accurate a molding may make it difficult to remove the Brailon* copy from the master. This problem could be overcome by using a cylinder shape, with domed top, having the same dimensions. While the domed dowel-plugs are more expensive (as an upholstery item they are available commercially) than cylinders cut from doweling rod, they do produce a better button if the aforementioned problem is avoided. Nevertheless, their added expense is usually only justifiable if they are re-used in the making of several masters. Figure 1 shows response buttons on a copy of a test with the lines of single dots that lead from the last word in each choice to the button.

A recent development of the basic system involves the use of a prototype device which enables more versatile and economical use. Instead of mounting the dowel-plugs directly on the master braille copy, they are attached to

* Brailon is a registered trademark owned by the American Thermoform Corporation, Pico Rivera, California.

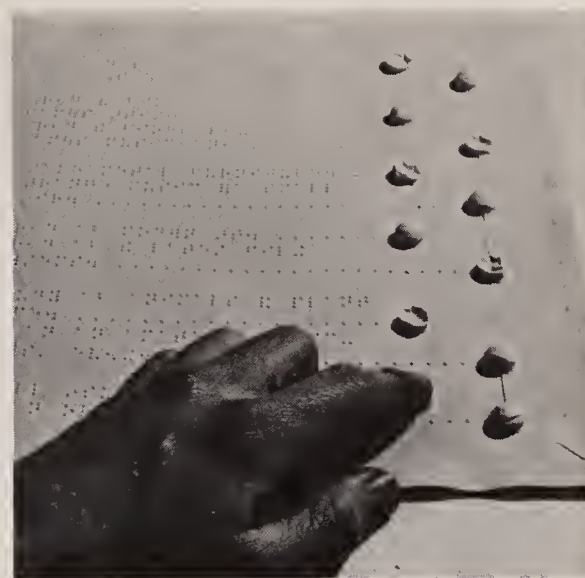


FIGURE 1
Braille Test With Permanent
"Response Buttons"

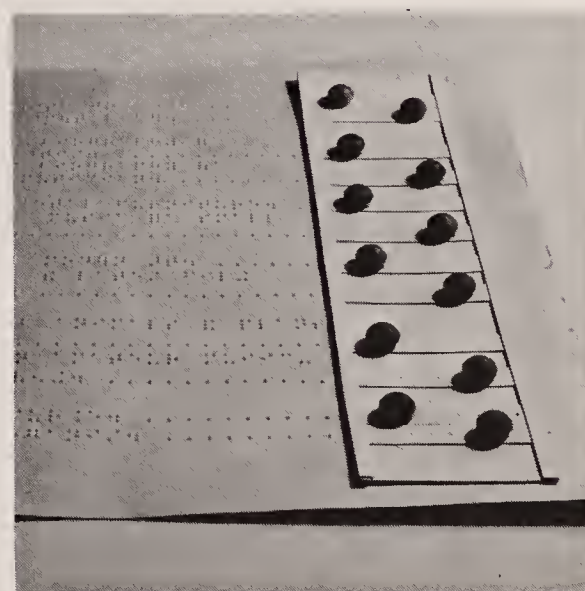


FIGURE 2
Prototype Device for Arranging the
Dowel-Plugs on the Master

small (2" \times 3/8") plastic strips that can be inserted anywhere in a grooved plastic holder that forms a column on the right of the master sheet (Figure 2). Reversing the strips end for end provides the two columns (necessary to produce separate and distinct buttons located on consecutive lines of braille). The holder can then be attached to the master with two spots of adhesive ("Hold-It," "Plastick," or similar material available from stationery stores) for the thermoform copying process. Although the copy naturally includes an impression of the device (Figure 3), it is tactually unobtrusive and does not interfere with the administration of the test. Use of this device allows for the making up of a test for even one student, because it can be immediately re-used, if need be, to make up a different test.

An alternative to positioning the response buttons at the end of the choices is to place them across the page after the item (Figure 4). While this arrangement may be more economical in space, it may create the possibility of greater inaccuracy in recording the desired response.

While the extra space taken up by the response buttons may generally be seen as a disadvantage, this will be slight in comparison with the gains in the accuracy of recording responses, the opportunity for the blind person to check his responses, the independence from sighted recorders and checkers, the ability to change a response if necessary, as well as the increased motivation arising from the active motor involvement in depressing the response buttons. In addition, the test sheets can be used again and again.

During the coming Biennial Meeting of the American Association of Workers for the Blind, July 22-25, 1973, in Cleveland, Ohio, interested persons will be able to examine and use a braille and response-button test in connection with an evaluation questionnaire to be completed by those using an auditory map of the convention area (described in the preceding article).

Bauman, M. K. Psychological testing and blindness: A retrospect. In *Blindness 1972: AAWB Annual*, pp. 177-201. Washington, D.C.: American Association of Workers for the Blind, 1972.

Scholl, G. T., Bauman, M. K., & Crissey, M. S. *A study of the vocational success of groups of the visually handicapped*. Ann Arbor, Mich.: School of Education, The University of Michigan, 1969.

A vocational interest scale administered in braille. *New Outlook for the Blind*, 1971, 65, 20.

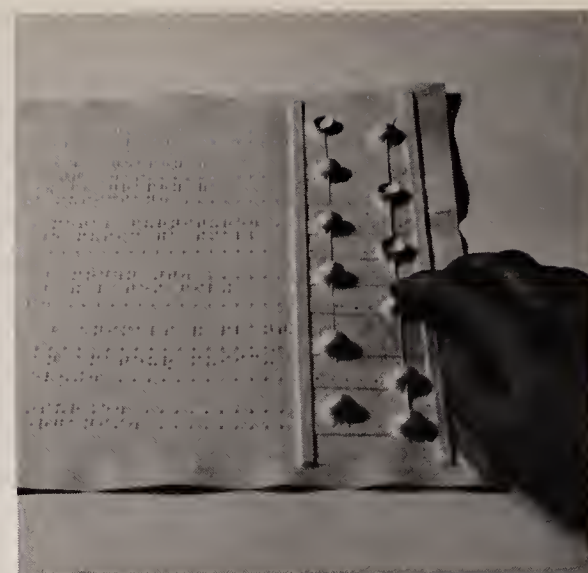


FIGURE 3
Response Sheet Made Using the
Prototype Device

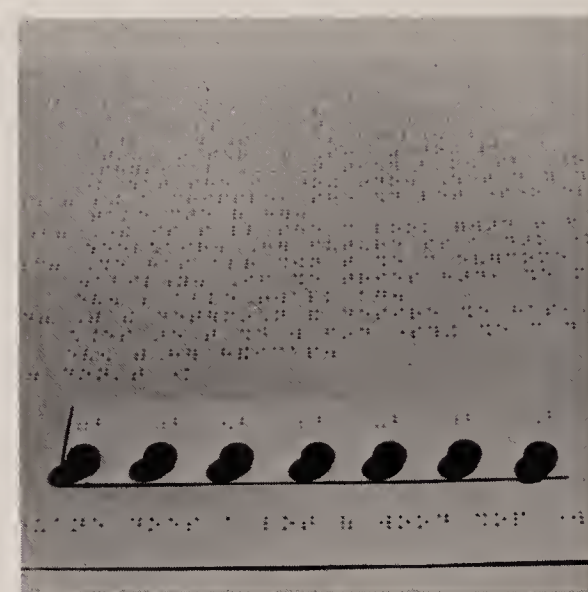


FIGURE 4
Alternative Arrangement of
"Response Buttons" on Test

**Next Month's New Outlook Will Be
a Special Issue on Career Education**

Making Mobility Meaningful

ABSTRACT: *The sequential orientation and mobility curriculum in use at the Iowa Braille and Sight Saving School consists of 127 lessons divided into five units of instruction (indoor travel, campus travel, residential travel, basic business travel, and advanced business travel). In addition to the motivational possibilities built into the curriculum, the instructional staff have also experimented with a mobility quiz contest and with awards and cash prizes for achievement and extra-curricular travel experience. The specific skills and tasks involved in each unit are listed in an appendix to the article.*

Developing creative, sequential mobility instruction in a residential school setting usually involves utilizing many different resources and procedures. In attempting to establish this type of program for our students at the Iowa Braille and Sight Saving School in Vinton, we have experienced various degrees of success. In general, however, the results have been encouraging. In this evaluation of our modes of operation, we would like to explain some of our attempts to make mobility more meaningful and beneficial to our students.

Essentially, our orientation and mobility program is based on our belief in the importance of enabling as many students as possible to become competent in the use of methods of safe, efficient, and independent travel to the limits of their ability. We feel that our students should develop this competency in many different settings through numerous reinforcing experiences. We provide these experiences by having our students progress through five units of instruction, beginning with basic concepts, pre-cane skills, and indoor familiarization, and then advancing to coping independently with complex situations in Cedar Rapids and Waterloo, nearby small cities. The techniques and skills included in these units are taught and practiced with the intention of transferring them to the students' home communities, colleges, and places of employment.

□ Unit one, "campus indoor," presently consists of 28 sequential lessons and covers orientation to the inside of our main building, the boys' dorm, the girls' dorm, and the tunnels. During this time, the students are introduced to such pre-cane techniques as using a sighted guide, seating, trailing, upper and lower cross body techniques, squaring off, taking a line of direction, and locating dropped objects. Following some practice with these skills, students are introduced to various cane techniques, including the basic diagonal and touch techniques. Modifications of these, including using the cane in turning corners, trailing, locating door mechanisms, touch and slide, descending and ascending stairs, and entering automobiles, are introduced in the latter half of the unit. Most of the lessons in this and the following units consist of three parts: objectives, location or route, and evaluation. A student's progress is usually evaluated in relation to the objectives of specific lessons.

Unit two, "campus outdoor," involves orienting the students to the posi-

ALVIN E. VOPATA, M.A.

Mr. Vopata is an orientation and mobility instructor at the Iowa Braille and Sight Saving School, Vinton.

Five units of instruction

Indoor Mobility

Outdoor campus orientation

tions and connecting routes of all the buildings on campus. This includes familiarization with driveways, sidewalks, and parking areas. The lessons in this unit have been devised to reinforce skills introduced in unit one as well as to assist the students to further develop these skills in an outdoor setting. Compass directions, introduced in unit one, are now accentuated to a greater extent. Use of sound reflection, surface change, and kinesthetic abilities are now utilized more frequently in the instructional process. In unit two our students are introduced to additional cane techniques, including shorelining, curb trailing, touch and drag, and locating blended curbs. The 24 lessons in this unit generally involve having the student follow the many different routes to the numerous buildings on campus, using the newly introduced cane techniques appropriately.

□ As our students progress to unit three, they are introduced to off-campus travel. Initially, we have them develop some conception of a city block by first having them walk a block and return to the starting point. Then we have them walk around a block to give them some idea of the nature of a square block. From that point we introduce street crossings and positional relationships between them and parallel streets. These initial lessons form much of the foundation for the generally more complex lessons that follow them. As the student progresses through this unit he is expected to retain and improve the orientation and cane technique skills he began developing in the first two units.

During unit three, students have many opportunities to learn about residential Vinton, a favorable mobility instruction setting due to its both typical and unique small town characteristics. For instance, students learn about the parallel consistency of its north-south avenues and east-west streets which are identified simply by numbers or letters, except in a part of town which is sometimes known as "mortgage hill." While completing this unit, students have experiences in coping with T- and dog-leg intersections, various types of sidewalks, occasional traffic sounds, a rather inconsistent house numbering system, a viaduct, and an overpass. When it appears that a student would benefit from the reinforcement of certain skills or travel abilities, we have him reverse a route or repeat it. Sometimes both seem necessary and helpful. In the latter part of this unit, we introduce some rural travel and increasingly encourage students to function independently in most situations.

Before beginning unit four, we usually expect our students to be able to complete independently at least two drop-off lessons in which we attempt to disorient them by driving to some residential part of town; they are then asked to go from that point to another place, using their own choice of routes. Unit three, our longest, consists of 32 lessons at the present time. We are constantly aware of the need to change some of our lessons because of physical changes in the community, as well as the need to modify certain objectives to meet individual student needs; nevertheless our basic format in this and other units appears to continue to accomplish desired results. For this reason, we are continuing to use a more structured procedure than is found in some other programs.

Off-Campus Travel

Residential neighborhood

Drop-off lessons

□ As our students begin unit four, they are gradually introduced to basic business travel by having several lessons which involve walking through a residential area to a business establishment. In this unit they are given many opportunities to cope with such situations as obstructed sidewalks, rounded curbs, traffic lights with turn arrows, and irregular traffic flow. They are also provided with lessons that specifically deal with walking past service stations, coping with standard traffic lights, store familiarization, business address system, and various other aspects of small town business travel. As in the previous unit, one of the basic objectives of these experiences is not to enable a student to become completely familiar with downtown Vinton; rather it is to provide him with means through which he can develop various complex orientation and mobility skills that can be transferred to other similar environments. We consider soliciting aid a major tool in successful travel in a somewhat unfamiliar environment. For this reason, we provide each of our students with some lessons in which they need to ask directions or ask for some other type of assistance. At the end of the unit we usually have our students complete a couple of drop-off lessons in the business section of town. In some cases further instruction appears to be needed before progressing to faster-paced, more congested Cedar Rapids; we therefore have individual students complete as many special lessons as seem to be necessary.

□ Students who have not had much experience in city travel are generally much impressed by the change from unit four to unit five. A common reaction is apprehension related to the speed and density of the traffic. This usually subsides somewhat during the first two lessons, especially after the student learns that the consistent, more assertive flow of traffic tends to be a travel aid, rather than something to be feared. In unit five we attempt to instruct our students in such settings as large department stores, bus stations, a large hotel, and various business establishments in shopping centers. We instruct them in techniques used for ascending and descending escalators, elevators, crossing railroad tracks with blended sidewalks and parallel streets, revolving doors, riding a city bus and a taxi, and coping with crowded situations. Most of this instruction occurs in the center of the city. However, we also have included two lessons dealing with shopping centers: the first, a large one-level center in Cedar Rapids; the second, a major enclosed two-story center near the Waterloo city limits. In conjunction with the latter lesson, we usually have our students call a taxi to take them to the Waterloo bus station where they buy tickets and return to Vinton on one of the buses. With this, the students have completed unit five as it is now written and consequently the mobility instruction offered at our school, unless additional instruction seems necessary and time for it is available.

□ Through completing these five units of sequential instruction, involving a minimum of 127 lessons, our students may progress from elementary concepts and pre-cane skills to complex, advanced business travel. Due to the fact that there are many individual differences and needs among students, most do not begin with unit one and finish at the end of unit five. Many

Basic Business Travel

Soliciting aid

Advanced Business Travel

Shopping centers

General Observations

either have enough sight or are familiar enough with the school environment to begin instruction in a residential area. Others may not progress sufficiently to complete unit five by the time they leave our school. Some students, especially ones who have partial vision and some independent travel experience prior to mobility instruction, are sometimes accelerated through our program with an emphasis on orientation. For many others it has been necessary to have several reinforcing and special lessons in each unit. Although our lesson plans are quite specific, each of them can be, and frequently must be, modified to fit the needs and abilities of individual students. That is, we attempt to maintain a pattern of structured flexibility.

To enhance individual interest in units three and four, we include many routes which are to destinations that seem to be of special interest to the students. We have increasingly provided students with experiences in planning their own routes and considering alternate routes. In view of the fact that the lessons are sequential, we encourage students to relate the nature and location of one route to other routes with which they are familiar.

We have discovered several advantages in using explicit, sequential lesson plans. For instance, each student knows that his fellow students are expected to cope with the same type of difficult situations. With sequential, carefully planned lessons, overly repetitive or deficient lessons are minimized. This structure can therefore be especially helpful to the new or intern mobility instructor. In such a situation both the instructor and the student tend to feel more secure than if the lessons are based only on what the instructor feels like doing on a particular day. Students who have other learning disabilities in addition to blindness, or who may be especially apprehensive about independent travel, often need this feeling of security and consistency to help them develop the confidence needed to function without a sighted guide.

□ Soon after most of our lesson plans were completed, we were asked to develop a series of achievement levels for our students. Other teachers were also asked to develop similar evaluative criteria in relation to the subjects that they taught. With sequential lesson plans, developing achievement levels can be relatively easy when the lessons are in progressive order of difficulty and skill complexity. In addition to providing us with another means of determining and comparing our students' progress, these achievement levels also have helped us to evaluate the strong and weak aspects of our present program. (See the appendix to this article for the achievement levels established for each of the five units in our program.)

In addition to the achievement levels, we felt that we needed some type of specific pre- and post-test procedure that could be used to evaluate definite comprehension and concept problems in some students. At first, we began developing a set of questions related to material in the units with the intention of simply asking the questions before and after certain lessons. Although this type of procedure has its merits, especially if the questions are pertinent and are asked by a stimulating instructor, we felt that the evaluative process could be improved. One result of our seeking an improvement is a

Special interest routes

Sequential lessons

Achievement Levels

Testing

"mobility quiz" based upon certain aspects of the structure of TV quiz programs. To facilitate the procedure for the quiz, we have had a peg board constructed. On this peg board 15 hooks are fastened, each holding a set of cards grouped according to separate aspects of orientation or mobility, and according to level of difficulty. We have grouped our students according to the amount and levels of instruction that they have completed; then we will have them compete on the basis of the completed instruction. This type of contest is adaptable to either team or individual competition. In the short time it has been used in our program, it has stimulated an encouraging amount of interest. The approximately 150 questions which we have developed for this quiz cover orientation, techniques, concepts, and mobility-related situations.

□ Another incentive, one which we have already used for about two years, is presenting a monthly mobility award and five dollars to the student who has shown the most improvement in orientation and mobility skills during the preceding month. We also use a "mobility milers" contest through which we record the distance that a student travels independently in mobility classes. In addition, we record the distance that a student reports he has traveled independently with appropriate use of his cane outside mobility classes. Usually, we consider 12 blocks to be equal to one mile. The male students seem to be especially eager to compete in this contest. For the past two years, we have been awarding a trophy to the student who has walked the furthest during the year.

Perhaps there is no definite limit to the ways in which mobility students can be motivated. Even many of the ordinary methods, such as giving realistic and sincere praise, may be quite effective with some students. Due to the fact that mobility is usually taught on a one-to-one basis, instruction methods can frequently be molded to fit individual personalities and learning patterns. Constructive results are most likely to occur if the instructor is sensitive enough to modify his instruction to fit the particular needs and abilities of his students in relation to the difficulty of the lessons involved. In most instances, potentials of specific students can be evaluated fairly realistically after a few evaluative lessons with an experienced instructor. From this initial evaluation, we have learned through experience that each student is likely to have to spend a different amount of time in completing a particular unit and that after a few lessons we can begin to project some expectations for that individual student.

□ Along with recognizing and hopefully enhancing the constructive learning patterns of our students, we continually look for ways in which we can improve our teaching methods. For instance, sometimes a student may need a concrete clarification of his position in relation to his immediate environment. A creative instructor who recognizes this need will likely provide his student with a vivid, but not too complicated, verbal picture of the situation that can be best understood by that particular student. The point is that we have found our sequential lesson plans to have the most constructive value when we have used them flexibly and creatively in relation to individual students. That is not to say that even this combination is a panacea for ori-

"Mobility Quiz"

Awards

Modifying instruction

Conclusions

entation and mobility deficiencies in a residential setting. However, we have seen enough positive results to feel that we have gradually improved our program and have, therefore, felt inclined to share some of our procedures at this time.

APPENDIX: Orientation and Mobility Achievement Levels

Level I: Indoor Travel

1. Walks with a sighted guide in various situations.
2. Relates own position in space to the compass directions while traveling.
3. Locates objectives and guides line of travel by trailing the wall with back of hand.
4. Locates objectives and protects self by using the lower cross-body technique.
5. Protects self by using the upper cross-body technique.
6. Determines line of travel by squaring off with a straight surface.
7. Determines line of travel by using a parallel surface.
8. Seats self in various types of chairs, placing the cane in a safe, accessible position.
9. Travels in own dormitory.
10. Retrieves dropped objects.
11. Travels in the Main Building.
12. Protects self by using the diagonal cane technique.
13. Protects self by using the touch technique with the cane.
14. Protects self and others by turning corners with the correct cane technique.
15. Locates destinations and guides line of travel by trailing the wall with the cane.
16. Locates and operates door mechanisms.
17. Locates drop-offs by using the touch-and-slide technique.
18. Descends stairs with the cane.
19. Ascends stairs with the cane.
20. Travels to areas in dormitories other than own.
21. Uses sound to aid orientation.
22. Uses touch to aid orientation.
23. Enters a car.

Level II: Campus Travel

1. Protects self and responds to information gained from the touch cane technique applied out-of-doors.
2. Protects self, gathers information, guides line of travel, and locates destinations by trailing curbs, walls, etc., with the cane.
3. Protects self, gathers information, guides line of travel, and locates destinations by shorelining with the cane.
4. Relates building exteriors to building interiors.
5. Protects self by locating curb and stair drop-offs with the cane.
6. Protects self and guides line of travel by using the touch-and-drag technique.
7. Detects blended curbs with the cane.
8. Corrects a veer after crossing an open area.
9. Uses sound reflection as an aid to orientation.
10. Uses sound localization as an aid to orientation.

11. Travels over a surface change without losing the line of direction.
12. Relates own position in space to the compass directions while traveling.
13. Relates the position of campus buildings to compass directions.
14. Relates the position of various entrances of each building to compass directions.
15. Travels to all buildings on campus from any location.
16. Plans the safest, most direct route to any building on campus.

Level III: Residential Travel

1. Demonstrates the physical layout of the city of Vinton, including street naming, boundaries, and deviation in the street pattern.
2. Demonstrates the structure of city blocks.
3. Distinguishes between parallel streets and perpendicular streets.
4. Demonstrates the relationship of a street to a sidewalk.
5. Demonstrates the design of an intersection.
6. Detects blended curbs.
7. Crosses streets.
8. Compensates for veers when crossing streets, driveways, and alleys.
9. Determines traffic location, distance, and direction of movement by listening.
10. Travels to locations within the immediate area of the campus, such as Bowman's Grocery Store.
11. Crosses a heavily traveled street, such as C Avenue.
12. Locates an entrance which has no entry walk, such as that of Hamburger Inn.
13. Passes an open area without veering into the street or away from the sidewalk.
14. Travels across railroad tracks.
15. Adjusts route of travel when a sidewalk ends.
16. Crosses and travels around a curbless intersection.
17. Locates houses by using addresses.
18. Travels in unique situations:
 - a. Dog-leg intersection.
 - b. T intersection.
 - c. Irregular sidewalks.
 - d. Underpass.
 - e. Viaduct.
 - f. Streets without sidewalks, but with curbs (suburban).
 - g. Streets without sidewalks or curbs (rural).
19. Maintains orientation in a residential area, using compass directions.
20. Uses sound as an aid to orientation.
21. Uses touch as an aid to orientation.

Level IV: Basic Business Travel

1. Transfers skills and knowledge from Level III: Residential Travel.
2. Crosses independently the wider business area intersections.
3. Demonstrates the structure and operation of stop sign intersections.
4. Demonstrates the layout of service stations and copes with them.
5. Crosses streets which have extremely rounded curbs.
6. Passes an open area without veering into the street or away from the sidewalk.
7. Crosses independently a highway which passes through a commercial area.
8. Locates entrances which are designed for vehicle access.
9. Demonstrates the structure and operation of regular traffic light intersections.
10. Describes and states the function of traffic lights with turn arrows; crosses streets which have such lights.
11. Travels in areas which have obstructions such as parking meters and lamp posts.
12. Associates the arrangement of business establishments in downtown Vinton.
13. Differentiates among the various types of store entrances.
14. Locates business establishments by address.
15. Functions within a business establishment:
 - a. Adjusts cane technique.
 - b. Solicits aid when necessary.
 - c. Comprehends the principles of store environments.
 - d. Makes purchases.
16. Solicits and controls aid with poise.
17. Familiarizes self with a building.
18. Utilizes remaining senses to gain or retain orientation.
19. Travels independently in the basic business area.

Level V: Advanced Business Travel

1. Transfers skills and knowledge from Level IV: Basic Business Travel.
2. Demonstrates the layout of street patterns and sectional divisions of Cedar Rapids.
3. Associates the locations of streets in Cedar Rapids with major landmarks.
4. Crosses a heavily traveled street at an intersection having a walk light.
5. Uses parallel and perpendicular traffic sounds for efficient travel.
6. Travels over a route involving various types of traffic signals.
7. Uses escalators.
8. Locates an objective that is not easily accessible in a large department store.
9. Expresses courtesy and consideration toward others while traveling near groups of persons.
10. Uses elevators.
11. Solicits aid courteously.
12. Uses revolving doors.
13. Functions in an inter-city bus depot.
14. Rides a city bus.
15. Travels courteously and independently by city bus.
16. States the availability of transportation services such as taxis and limousines at a large hotel.
17. Associates readily the arrangement of stores at a large shopping center.
18. Locates a specific place at a shopping center.
19. Makes a courteous and efficient purchase in any type of business establishment.
20. Recognizes similarities and differences between two different types of large shopping centers.

CEC's Division for the Visually Handicapped to Meet in Dallas

Under the leadership of Philip Hatlen, president-elect of the Division for the Visually Handicapped (DVH), a wide range of activities of interest to workers in the specialized field of work with blind and visually handicapped children has been planned for the forthcoming 51st International Convention of the Council for Exceptional Children (CEC), to be held April 22-27, 1973, in Dallas, Texas. The first three days of the convention are to be devoted to the activities of the Council's several special-interest divisions, of which DVH is one. The balance of the week includes plans for general-interest meetings, several of which however will focus on visually handicapped children.

Action on Issues

ABSTRACT: Knowledge about the political aspects of the delivery of social and health services is necessary in formulating policies that will have the most chance of achieving the desired goal of improved services. Also required for effective action is a critical evaluation of the relationship of long-term goals, as set forth in policies, and short-term action decisions. An ethical imperative based on the principles of distributive justice is proposed as the means of achieving a more equitable and just allocation of resources. Specific practical principles are suggested, including giving the highest priority to access to services, insuring client participation in decision-making, altering programs to fit the life-style of the clients, and persisting in the pursuit of solutions.

In addressing yourselves to action on issues, I assume the term "action" concerns personal professional and organizational activities expected to achieve enactment and support for programs and services, and the setting of priorities in their implementation. Issues, I assume, refer to the conditions to be dealt with, and the programs proposed for dealing with them. Since even a cursory review of your publications reveals considerable attention to issues, covering the full spectrum of the needs of blind persons, I will pass over the programmatic questions. I will deliberately focus my presentation on action, and on the ethical concerns that enter into the selection of priorities. In the broader meaning of politics—the process whereby resources are allocated—the action we will be considering is clearly political.

□ In politics, it is product rather than performance that should engage our attention. This thought is prompted in part by the current electioneering rhetoric, but reflects a deeper concern I have about the role of "fact" in informing social action and setting social priorities.

The advent of the computer has added an aura of wizardry to the behavioral sciences, so long starved for quantitative data. In turn, our political leaders have sought to employ these sciences in policy formulation. Our attention has understandingly followed the dazzling performance of these magical calculators. But what of their products, the "facts"? In the decade that managed to reverse the civil rights revolution, perpetrate Vietnamization on the Vietnamese, purchase would-be deflation by increasing unemployment and expanding the income gap between the rich and the poor, it seems evident that our political leadership has exploited the talents of our digitating mandarins more to enjoy their ingenious performances than to act on the "facts" they produced. Nevertheless, the most frequent advice we in the helping professions receive from politicians is to get the "facts." Experience warns us not

This article is based on a keynote address given at the Annual Conference, New York State Federation of Workers for the Blind (a state chapter of the American Association of Workers for the Blind), New York City, October 5, 1972.

HAROLD LEWIS, D.S.W.

Dr. Lewis is dean of the School of Social Work, Hunter College of the City University of New York.

Attention to the Product

The quest for facts

to believe it, but we, nevertheless, act on the premise that the soft heart must be wedded to hard data and that sound policy and fruitful action will result. □ We, too, can ignore what behavioral scientists tell us about politics in our fields, but only at great cost in wasted energy and resources. Many years ago, a pioneering study of the financing of voluntary health organizations in the United States concluded that in the politics of health, that is, the distribution of health resources, money often did not go where the need was greatest. Since then, studies in welfare, education, recreation, and employment have provided similar evidence. It is a reasonably well documented fact that support for worthy causes is not won by proving need, however hard-headed the data confirming need. In addition to the power of fact, there is the power of position. The power of knowledge without the power to effect political and economic decisions is more likely to produce welfare equivalents of the Pentagon Papers than a SALT Agreement. While in other political areas of resource allocation policies may be said to reflect the knowledge that informs them, in our fields we must appreciate the limitations of this generalization, particularly when we look at the products of these policies.

Recently, a pharmacist proposed incorporating just enough emetic in each drug tablet to make a person vomit. If the safe dose is exceeded, the emetic would be in a form which is rapidly absorbed, whereas the drug itself will be released into the body only after about half an hour. In this way, dangerous drugs may be made safe, and hundreds of accidental poisonings and thousands of suicides prevented (Gillie, 1972). Imagine if by some similar procedure, policies enacted to govern health, education, and welfare programs, had incorporated in them feedback mechanisms that would suspend their application when their product and consequences ran counter to their intentions? Given the current state of many of our welfare, education, and health programs, we could easily find ourselves in a state of suspended animation.

□ Of course, the crucial issues concern *intentions*; *intentions* combine purposes and goals with an element of motivation. Careful readings of the debates associated with legislative enactments affecting health and welfare programs illuminate the cross purposes, conflicting goals, and diverse motivations that ultimately blend into the necessary consensus required to gain passage for particular bills. Precisely because the process necessitates compromise, the product is often compromised. Thus, at any moment in time the results of a program fulfill someone's intentions, even as they fail to fulfill most people's expectations. Adding *knowledge* as an ingredient to this political process may seem to the producer of such knowledge to be a value-free scientific exercise in objective analysis. To those engaged in the process, however, such knowledge only serves to cool the ardor of some, and emblazon the enthusiasm of others. Knowledge is never neutral in politics, even when it is substantively inert and sterile. As for the art of politics, one does not have the right to expect a uniformly or even minimally attractive style to characterize the activities engaged in by those most involved in its practice. Whatever art may be manifest in politics is largely in the eye of the beholder, and often constitutes a mistaken notion of what has actually taken place.

The Politics of Health and Welfare

Feedback mechanisms

The Issue of Intentions

The role of knowledge

Political action, not unlike all other forms of social intervention, is neither a science nor an art, but a *practice*. Ultimately, it is not to be judged by the *truths* that inform the actors, nor by the *skill* with which they carry their roles—but in light of the principled or unprincipled nature of their performance as evident in its products. Only the product reveals in its form and use over time the intention of its producers. Only the product can serve as a final measure of fulfilled expectations. I stress use over time, for short-term measures can be deceptive. Consider, for example, the tyranny of small decisions, wherein piecemeal steps accumulate to yield large scale catastrophies with the best of intentions. A famous American philosopher used to ask his students to ponder a situation in which some thousands of years back, a God-like figure descended amongst the sparse tribes of man and offered them the equivalent of the power of 100 horses for every living member of the tribe, to do their work and carry their burden of locomotion, asking each year in return the sacrifice of the lives of one-tenth of one percent of their community as payment. For these people, with so sparse a population—even one life sacrificed each year was too many, and they could foresee how in time the cost would grow—so they refused. Now, many years later, by a series of small decisions, they arrived at the point of using that power—in automobiles and airplanes—paying the price in death and mayhem, without ever making the big decision.

□ So it is with social legislation. We are constantly called upon to accept compromised intentions, on the assumption that some short-term progress is better than none . . . but we rarely attempt to evaluate whether a little progress may foretell a large regress. We push for programs for children, accepting that their needs have wider appeal than do the needs of the aged. We enact these programs for children and generate new data to support the need to expand them. But the aged, who don't have the lasting power of children, nor the supports to produce more power on their own behalf, now suffer a relatively greater deprivation. The price we pay in such small partial steps may be acceptable for some, but for other sections of the population may be unbearable. As you weigh the order of priorities upon which you will act, consider products and their long-term effects; not only what appears to be immediately practical. Being practical is often an euphemism for unprincipled opportunistic behavior, yielding short-term benefits and long-term deficits.

My thesis, then, is simple. If we listen carefully to what behavioral science tells us about politics, we will appreciate why facts alone are not enough, nor may we judge political actions by the intentions and skills of the actors. Products and their long-run effects reveal the principles that inform actions and must be the basis for evaluating alternatives and choosing priorities.

□ In the various policy statements developed by the American Foundation for the Blind, there is evident an underlying philosophy of service. My reading suggests an intention to achieve a long-term principled goal through a variety of programs, each limited in scope. Elements of this philosophy include a belief in service that is universally available; that promotes personal development and utilization of individual capacities; that enhances opportu-

The practice of politics

The tyranny of small decisions

Compromised Intentions

Evaluation of the product

Work for the Blind

nities for choice; that strengthens and builds on familial and kinship supports; that promotes emotional and financial independence. Specific programmatic proposals are apparently to be judged not only by their immediate impact on conditions which prompt them, but also on the likelihood of achieving these long-term goals through their implementation.

□ If my reading is correct, then there is need for a central ethical principle that could serve as a base line for all the judgments entailed in evaluating the long-term goals and short-term action choices. Such an ethical principle has, in fact, been proposed and brilliantly argued by John Rawls of Harvard. It is a principle of distributive justice, or as Rawls views it, a conception of justice based on a belief in what is fair and reasonable.

A view of the evidence suggests the proposition that our society rewards the advantaged at some cost to the disadvantaged, and, as a consequence, even in the human service professions, the more able and socially privileged tend to receive the higher quality services. Helping professions, in their codes of ethics, place the client's interests first in arriving at priority decisions, and in principle do not condone preferences that disadvantage the less able and socially deprived. In circumstances of fair and equal access to economic opportunity and positions, the helping professions appear to agree that unequal benefits can be justified only if they contribute to a scheme that improves the expectations of the least advantaged among potentially eligible claimants for service (Rawls 1968, p. 59; also Howard, 1968, p. 391).

□ Programs and the policies that justify them ought not be judged acceptable, if in their implementation they reward the able and socially advantaged without improving the expectations and resources of the least advantaged. Let me illustrate this ethical imperative by citing two examples of policies that negate it. The following report describes the operational norm of a service agency, and is based on the hearings held by the United States Senate Public Works subcommittee investigating disaster relief agencies in the aftermath of a hurricane (Nordheimer, 1970):

The major issue, particularly in the case of the Red Cross, is whether relief should be distributed on the basis of pre-disaster, economic status, or whether it should be granted strictly on the basis of individual need and the establishment of minimum standards of adequacy for all disaster victims.

The Red Cross Manual for assistance to disaster victims is steeped in the doctrine that they be restored to normalcy, that they should receive aid in proportion to the standard of living to which they were previously accustomed.

On the surface, this position sounds eminently fair to most middle-class Americans, but to many Negroes it is another manifestation of a white-oriented society, the black leaders testified.

The point the Negroes raised is basically this: what is the value of returning a family to their pre-hurricane status when that condition was already one of wretchedness? The Negro mother needing clothing for her children is angry and bitter when she is given second-hand goods while the middle-class mother is issued new clothing. They said there is little consolation for the Negro who remains in a tarpapered shack and watches the Red Cross pay for the construction of a new home for his white employer.

The Principle of Distributive Justice

Advantaged vs. disadvantaged

The Ethical Imperative

Disaster relief

Apparently, sudden catastrophies, such as the hurricane in question, serve to surface, in their aftermath, the consistent way in which earlier inequalities beget later ones. This same pattern was highlighted by a group of Washington economists who pinpointed the unequal impact of pay roll taxes on the poor, as compared to the well-to-do, and then contrasted this with the much larger reductions in personal income tax rates in the upper brackets. Thus raising the Social Security Pay Roll Tax once again, further disadvantages the most disadvantaged (Aaron et al., 1972). In both illustrations, obviously, we are not dealing with the calculated scheming of evil men who contrive malicious programs. We are simply confronted with the consequences that follow when a system of service fails to ground its policies on an ethic of distributive justice.

□ This proposed ethical standard requires as a precondition that equals be treated equally, and unequals unequally (Barry 1965, pp. 152-153). In other words, all members of the same class should receive the same treatment, but that differences among classes should be reflected in appropriate differences in treatment. It is apparent that judgments of equity that ignore this requirement are likely to be in error. Experiences suggest that inequalities will tend to favor the most favored, unless deliberate provisions are made to compensate for the pervasive bias in our society's distributive mechanisms.

For example, a public transportation breakdown will deny all citizens who depend on such transportation access to clinics, schools, and work where these cannot be reached without mechanical support. But when such stoppages occur, as I learned during the last public transportation breakdown in Philadelphia, it is the aged and physically handicapped, poor school children in low income families, and the poorly paid workers who are most deprived by the stoppage. They could not afford other forms of transportation, while persons with means could. It may, to cite another example, make for greater efficiency of operation to close down neighborhood welfare offices and centralize, in a few centers, the staffs of welfare departments. For those clients who cannot travel; for those who need to provide for children when away from home for long periods; for those who lack the additional, often unanticipated, resources essential to carry out a visit away from the immediate neighborhood, the cost of the efficiency achieved will be higher.

□ Granted an awareness and sensitivity to such inequities, policies which provide for equal impact merely serve to assure equitable treatment, but not *just* treatment. To determine if justice is being done, one must search beyond the impact of the processes and procedures, and consider whether the product and consequences of change meet an additional requirement: that unequal benefits resulting from the action in fact raised the expectations and enhanced the resources of the least advantaged. In the case of the centralization of welfare functions in one center, what must be determined is the advantages gained by those who benefit most by the increased efficiency and the resulting increased resources actually allocated for the most disadvantaged clients whom the center is supposed to serve. Unhappily, experience suggests that, with occasional exceptions, such schemes for achieving efficiency are intended

Pay roll taxes

A Necessary Precondition

Public transportation breakdown

Insuring Just Treatment

to limit the total monies expended for welfare and are not viewed as re-distributive mechanisms expected to increase the resources available to the neediest cases. As these intentions become evident in the product and consequence of centralization, no matter how equitable its impact, it, nevertheless, is unjust. My initial statement, that product more than process must be used to judge political action, is, of course, consistent with this illustration.

□ Now each of the intended long-term goals of the policy statements developed by the American Foundation for the Blind can be viewed and judged on the basis of the proposed ethical principle, as could the short-term programs through which they are manifest. What may not be obvious, but can become so by simple introspection, is that this same ethical imperative can be used to judge your own professional performance in each service encounter. Because this is so, the need to appreciate the political content in day-by-day professional service activities and to judge its product accordingly becomes the crucial test of professional integrity and of principled professional behavior.

I have elsewhere developed this point in considerable detail (Lewis, 1972). Here, I would like to summarize a series of practice principles that derive from the ethical imperative proposed. I believe these can be used to guide the choice of priorities given to actions on issues at the practice, programmatic, and more encompassing policy level.

1. Whatever program you advocate, whatever the population toward which the program is directed, and regardless of its scope and resource, give priority to actions on the issue of *access*. Among the disadvantaged, motivation and capacity generally exceed opportunity. Considerable evidence supports the proposition that a major, if not *the* major deprivations are suffered by those who have limited access to information about a program and limited supports that encourage participation in it. These are the persons most often overlooked in developing eligibility requirements, in planning the physical plant, in locating facilities, and in allocating staff resources. In the implementation of programs, when resources are actually expended, it is frequently the case that these persons are the last to apply and the first to be terminated. They delay their applications for many reasons, not the least of which is lack of personal and social resources which are prerequisites for seeking out and applying for service. They are terminated early because they do not promise great success. Because they are the most deprived, when they do seek help for their troubles, they can be the most troublesome.

2. It is not enough to advocate the inclusion of client participation in designing programs and in their implementation. It is important to insist on a systematic effort to obtain representation from among the most deprived in the potential client population. There is no more effective reminder of purposes unfulfilled and trust betrayed than the questions posed by those most sensitive to failures in these areas. The willingness to allocate the resources necessary to assure participation of the most disadvantaged is a crucial test of an organization's intentions.

3. Program designs should be shaped to anticipate the life-style of those most in need of the service and most likely to be at a disadvantage in attempt-

Applying the Ethical Imperative

Practical principles

Access to services

Client participation

Life-style considerations

ing to use it. The most deprived should not be expected to change a life-style more frequently than others as a pre-condition for gaining access to a program. Differences that persons evidence in use of time in long-term planning skills, in preferred means of communication, and in service-use sophistication, should not be the primary targets for change, but should serve as useful guides in designing programs that invite their participation.

4. If what you advocate has merit, it deserves persistent and consistent effort to assure its enactment, so long as the problem it addresses remains unresolved. This type of commitment to action on issues must be informed by a faith in the soundness of your judgment of need and your certainty that the solution proposed is appropriate. Such faith will be strengthened by knowledge, re-enforced by experience, and supported by association with others of like belief. But unless it is buttressed by commitment to an ethical imperative which, in your own day-by-day behavior you adhere to, it is hardly likely that you will be counted among those who, in the long haul, see the action through to the point where its consequences confirm the wisdom of the cause.

□ I have deliberately chosen to focus on principles of distributive justice in this brief presentation. I realize, of course, that other principles of justice, those addressed to issues of freedom and trust, for example, must enter into choices of priority for political action. Nevertheless, unless we face directly the question of distribution, and achieve a more equitable and just basis for allocating resources, freedom and trust, among other attributes of a just society, will suffer. In programs employing professionals who are concerned to promote the physical, mental, and social well-being of those they serve, the continued failure to assure distributive justice in the allocation of their resources is bound to create distrust by those who suffer most from this form of injustice—the disadvantaged.

To conclude this discussion of action on issues, I would like to share the observation of a clever observer of human behavior (Hein, 1969, p. 34):

Commitment to action

A Final Word

The Road to Wisdom?—Well, it's plain and simple to express:

Err
And Err
And Err Again
But Less
And Less
And Less

Aaron, H. J. et al. "Social security pay roll taxes." Letter to the editor. *New York Times*, October 4, 1972.

Barry, B. *Political argument*. London: Rutledge & Kegan, Paul, 1965.

Gillie, O. Pills that make you sick, may save lives. *Sunday Times* (London), August 20, 1972.

Hein, P. *Grooks*. Cambridge, Mass.: M. I. T. Press, 1969.

Howard, D. S. *Social welfare: Values, means, and ends*. New York: Random House, 1968.

Lewis, H. Morality and the politics of practice. *Social Casework*, 1972, 53, 404-417.

Nordheimer, J. A. U.S. disaster relief and built-in bias. *New York Times* (reprinted in the *San Francisco Chronicle*, January 13, 1970).

Rawls, J. Distributive justice: Some addenda. *Natural Law Forum*, 1968, 13, 51-71.

Bibliography

Some Aspects of Welfare Services for Blind Persons in Japan

ABSTRACT: The entire spectrum of services for blind and visually handicapped persons in Japan (except rehabilitation) are described, including library services, the weekly newspaper Braille Mainichi (published by the mass-circulation daily Mainichi Shimbun), government benefits (privileges and services), the employment situation (including training opportunities), and the provisions for education.

As in most advanced countries, periodical surveys are conducted in Japan to ascertain the actual conditions of the indigenous handicapped population, including that of blind persons. The most recent investigation indicates that the total number of severely visually impaired persons is in the region of 243,000. Blind persons thus account for almost 25 percent of the 1,000,000 physically handicapped sector within the 105,000,000 over-all Japanese population.

□ The number of visually impaired persons in such a national registry naturally includes those with some vision, in addition to those who are totally blind. In actual fact, total (or virtually so) blind persons account for more than half of those registered, or about 130,000 individuals. Inevitably, causes of blindness are many and varied, but those blinded adventitiously, be it disease or accident, account for 90 percent of the total.

An elderly blind population is yet another common denominating factor between Japan and the majority of other countries—76 percent of the blind persons in Japan are 50 years of age or older. Since longevity plays such a prominent part in these statistics, it is no surprise to discover that 52 percent of the blind population are females. With increasing age, the corresponding ratio of women to men becomes even greater.

As elsewhere, charity plays quite a major part in the provision of services to blind persons in Japan. Individuals as well as groups and societies play a role. Volunteers ranging from housewives to students undertake transcription of print books and other reading material into braille. However, bearing in mind that braille readers among the blind are in a minority of 20 percent, it is not surprising that the remaining 80 percent are increasingly demanding talking books. Most of these recorded books (about 1,000 titles per year) are produced by the Japan Braille Library in Tokyo, who mainly call upon the services, given gratis, of television and cinema personalities and radio announcers to do the recording.

As with the occidental countries, organizations such as Rotary, Lions, Townswomen's Guilds, and Scouts undertake fund-raising functions for the benefit of various societies for the blind, among others.

□ As far as the private sector (as opposed to the state) is concerned, how-

HOWARD ROBSON

Mr. Robson is an instructor/grade "A" guide dog trainer in Great Britain. He recently spent two years in Japan where he was instrumental in establishing a guide dog school and mobility center in Tokyo. He is currently studying for a Bachelor of Education degree at the Institute of Education, Hull University.

The Blind in Japan

Charity

Mainichi Shimbun

ever, the foremost in the field of services for the Japanese blind is the *Mainichi Shimbun*, a mass-circulation daily newspaper which reaches a nationwide audience of nearly 5,000,000. The Japanese, incidentally, are avid newspaper readers; indeed, literature of almost any sort can usually command mass consumption. But for the sponsorship of the *Mainichi Shimbun*, however, the Japanese blind would be bereft of the innocent and informative pleasures of newspaper reading that are so freely enjoyed by their sighted fellow-citizens. The *Braille Mainichi*, carrying 32 pages on a 12- by 9-inch spread, is published each Sunday. It is the sole Japanese-language newspaper in braille produced in the archipelago (indeed, in the world), and it is published by the *Mainichi Shimbun*.

□ The *Braille Mainichi* made its first appearance on May 11, 1922, with an initial circulation of barely 800; today, 10,000 copies of each issue are sold. Whether or not the *Braille Mainichi* was originally established as a publicity venture on the part of its print stable mate, or purely from philanthropic motives, matters little. The point is, at a time when the wireless was unheard of in Japan and braille books were at an absolute premium, the inaugural issue of the *Braille Mainichi* brought a vivid ray of hope in the sphere of communications to Japanese blind persons. Not once in its more than 50 years of publication has the newspaper failed to appear. Even during the dark days of the monumental Second World War, the *Braille Mainichi* carried on its self-proclaimed but admirable task of imparting "knowledge, courage, and comfort to the blind so that they may play a positive part in society."

The weekly *Braille Mainichi* is by no means a mere digest of the contents published beforehand within the pages of its better-known parent newspaper; it is not a chronicle of events during the seven days previous to issue. Certainly, news as such is included, but the contents of the *Braille Mainichi* are diverse to the extreme. World economy, politics, sports, science, humanities, arts, book reviews, readers' letters, radio and television programs—all have their place; but not unnaturally a good deal of the publication is concerned with affairs relating to blind persons, including advances in the fields of welfare and rehabilitation and the goings-on of the blind throughout the world. For such a comprehensive mine of information, the price to the customer of 30 yen per copy is remarkably reasonable; but in actual fact, like so many other braille publications the world over, the newspaper is sold well below cost. The *Mainichi Shimbun* meets the financial deficit.

Having a huge national newspaper as a sponsor enables the *Braille Mainichi* to take full advantage of the vast resources that are immediately at hand. Thus the highly professional and polished end-product that results. On call are the countless press agencies, both national and international, that serve the giant parent newspaper, not to mention its correspondents and journalists scattered throughout the world, all equally willing to be of service to the smaller, but nonetheless respected, braille publication.

This is not to say that the *Braille Mainichi* does not have resources of its own; indeed, the reverse is the case, and the newspaper is run as an entity in its own right. Numbered among its employees are three blind reporters who

Braille Mainichi

News and other features

News resources

Blind reporters

take an extremely active part in the dissemination of news. In fact, the *Braille Mainichi* claims to be one of the very few newspapers employing blind journalists on the staff—journalists, that is, who are news reporters in the strictest sense of the term.

□ In response to the requests of that large majority of the blind population who, for one reason or another, are unable to read braille, the *Braille Mainichi* has recently begun offering a tape recorded edition of the newspaper. Since July 1968, a bimonthly tape, of some two hours playing time, covers the main contents of the *Braille Mainichi*. While the *Braille Mainichi by Voice*, as it is called, is still relatively in its infancy, the demand for it is on the increase. It is in this way that no small credit is owed to the *Mainichi Shimbun* for the service it offers to the Japanese blind community, a service that, with the passage of time, has become almost indispensable.

But the *Braille Mainichi* also embraces a wider field than the confines of newspaper publishing. The braille printing plant is not left idle to gather dust once the weekly edition has been produced—it is employed to the full in the production of other braille matter, with works of fiction and nonfiction and textbooks for students being the main output. On a wider plane still, the *Braille Mainichi* is active in the sponsoring of numerous events which are geared to the participation of blind persons, including sports and athletic meets throughout the country, and also cultural activities such as concerts and exhibitions.

□ While private ventures have their part to play in Japanese blind welfare, the government is by no means inactive. That this is so is shown in a practical way by an act of 1948, the Law for the Welfare of the Physically Handicapped, which states unequivocally that it is the government, acting on behalf of the nation, who must be held responsible for the welfare and well-being of its blind citizens, not to mention other groups of disabled persons. A pocket document, issued on the authority of a government physician, is held by all registered disabled individuals and entitles them to the various benefits provided by the state. As far as blind persons are concerned, the main entitlements are:

1. Facilities for providing and maintaining necessary aids such as white sticks, spectacles, artificial orbs, braille machines, and braille paper.
2. Free medical care of eye conditions, and convalescence in respect of treatment concerning residual vision.
3. Home helps for those blind people and their families who are unable to cope by themselves in the domestic environment.
4. Braille libraries (of which there are 65 in Japan) situated in the main centers of population to provide free literature and talking books on loan.
5. Rehabilitation and craft training, either on a domiciliary or residential basis, in the hope that it will lead to proficiency in either an individual or technical skill, or both, thus equipping the blind person to cope with his handicap independently and ultimately perhaps to gain employment.

Although these five aims are indeed admirable, in practice not all, for one reason or another, are brought to successful conclusions. The last goal, espe-

Braille Mainichi by Voice

Braille printing plant

Government Services

Benefits

Unemployment

cially, has been frustrated. The object here is to provide gainful work for blind persons, but, as is common the world over, unemployment remains at a high level. The problem is more acute in Japan than in the western countries however. Notwithstanding the nine institutes in Japan that exist to teach vocational skills to the blind (not including certain high schools providing technical instruction), the perennial problem—which reaches international proportions, it must be noted, and is not purely a Japanese phenomenon—of placing graduates in suitable posts remains; avenues of employment open to the trained individual are limited.

□ In 1970, just over 68 percent of the Japanese blind population were unemployed. Bearing in mind the high ratio of elderly blind, this is not an unduly high percentage. Of the 32 percent who are employed, 80 percent are physiotherapists of one form or another, being either masseurs, moxibustion therapists, or acupuncture practitioners. This inelastic vocational pattern of employment stems largely from historical precedent, and the passage of time seems to be of no consequence in altering the trend. From time immemorial, *anma* (massage) has been equated with the blind, and it is only rarely that one comes across a sighted masseur or masseuse, unless, that is, one cares to be treated by a pretty girl after a steam bath in a Tokyo pleasure parlor.

The very fact that physiotherapy has been identified as a select province of blind persons has led, whether intentionally or not, to major obstacles being placed in the path of those seeking employment in other directions. A vicious circle is completed when a blind person, perhaps having refused work in his chosen field, turns to massage as a last resort. His heart not being in it, and possibly having undertaken only the minimum of instruction at a less reputable school, his entry into the field results in the depreciation of the total skills of massage to the ultimate detriment of the adept and highly-trained blind individual who has elected physiotherapy as his chosen vocation.

□ In a legislative move to correct this situation, the Japanese parliament has promulgated the Law for the Promotion of Employment for the Physically Handicapped. Various administrative loopholes, however, ensure that this particular law is seldom enforced. Japan, therefore, is on a par with most other countries where a similar situation exists: lip service is paid to the idea of open employment for the handicapped, but it is seldom acted upon.

While the avenues of employment for the blind in Japan are still extremely narrow, there are at last signs that the roads are widening. Opportunities are still offered to blind persons in another traditional field, that of music. And with the advent of the first blind Japanese telephone switchboard operator in March 1968, it is hoped that further positions in this mode of employment (for those who desire it) will progressively expand. Vacancies for teachers, invariably in schools for the blind, are not infrequently offered, and some positions in the spheres of pig and poultry farming, piano tuning, and braille plate making occasionally arise. On the whole, however, the employment situation for blind persons, as far as Japan is concerned, is still unfortunately an extremely confined one.

□ In the realm of finance, there are a number of tax concessions to make life

Massage (*Anma*)

New Law

Newly opening fields

Financial Aid

a little easier for visually handicapped persons. This is doubly welcome in a country such as Japan where the economy is very much geared to the gross national product. Provision is made for either exemption or deductions from both income tax and residential tax as far as blind and other physically handicapped persons and their families are concerned. Self-employed blind persons, which includes, for example, most blind physiotherapists, are exempt from business tax. Purchase taxes, of course, are not payable on aids and appliances for the blind, not excluding such necessities as tape recorders and braille watches. The People's Annuity Law dispenses an annuity of up to 30,000 yen to each physically handicapped person whose level of income fails to meet the specified guideline. Approximately 85,000 blind people are in receipt of such cash awards.

Blind rail travelers need pay only half fare for their journey, no matter how frequently trips are made. Wireless licenses are not required of a registered blind person. There are no postal charges on inland braille mail. When it is sought, suitable housing or accommodation is offered by the appropriate local authority to the visually handicapped person. As far as financing for any personal, bona fide purpose is concerned, allowance is made for low-interest, long-term loans.

□ While the blind of Japan may legitimately say that their employment opportunities are strictly limited, they certainly cannot claim to be educationally deprived. Currently, over 10,000 young people with visual handicaps attend the 76 schools throughout Japan which are devoted solely to the education of the blind. Schooling, as in the sighted world, is compulsory at the primary and secondary level, and opportunities are present for progression to higher education. Concerning blind students, however, Japanese high schools do not operate purely in the academic area. Most of their time is spent on vocational training, with massage and its allied branches, as usual, taking precedence. Vocational courses in other areas are, however, beginning to make an appearance; the difficulty remains in finding appropriate employment for graduates when the educational process is completed.

Advanced education is by no means closed to blind persons, and some 60 students are at present studying for degrees at various Japanese universities, mainly in the Tokyo area. For the most part, these university students are reading for degrees that will qualify them as school teachers, so that ultimately they themselves will be involved in the education of the blind.

With the aid of government subsidies, schooling for blind children is free, as are the various ancillary services that go with education—transportation, meals, dormitory accommodation where applicable, textbooks, field excursions, and the like. Being conscious of the educational worth of preschool education in an optimal environment, some schools for the blind, with state backing, are in the process of establishing kindergarten groups at which attendance will be optional. There is little doubt, however, that the majority will take advantage of this invaluable new educational opportunity.

□ General observation makes it clear that the blind population of Japan lack for nothing with respect to education and educational facilities. Indeed,

Other concessions

Education

Advanced

Preschool

Conclusions

the whole spectrum of services to blind persons appears admirably catered for, and there is little to adversely criticize in this context. It is in the area of suitable and more diverse types of vocational training, and of readily available gainful employment for those active, intelligent, and ambitious blind persons in Japan who seek it, that criticism can be raised. However, the wheels of both state and voluntary efforts are slowly but surely turning in the direction of alleviating the employment situation and its limited openings. The ultimate aim, as with all societies, cannot be other than to have the Japanese blind person become a self-reliant, self-respecting, and independent member of the community in which he lives, and enjoying the same freedom that his sighted counterpart enjoys.

(The author wishes to acknowledge the help of the Embassy of Japan in London in the compilation of the statistics cited in this article.)

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

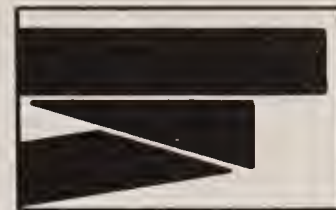
Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____



A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be approximately 350-1,000 words in length.

Integrating Blind With Sighted in Senior Citizen Centers

Judith Justice

Many of the senior citizens of Charlotte, North Carolina, are having a new and educational experience. It has been the goal of the Mecklenburg Association for the Blind to incorporate its visually handicapped clients into the sighted community. Of course this is essentially the goal of all agencies serving blind persons; but our staff has found that preliminary plans and contacts must be made. One cannot simply propel the visually handicapped person into a sighted group. This creates a situation as uncomfortable for the sighted persons as for the blind.

The older citizens of Charlotte are fortunate in that the Parks and Recreation Department has neighborhood centers throughout the city in which it has organized Golden Age Clubs. Our first contact, therefore, was with the director of the Parks and Recreation Department. He assured us that our clients would be welcome to use these public resources, but he was a bit skeptical about how those in-

involved in his program would behave with blind people. We offered to send a member of our staff to consult with the directors of the centers where Golden Age Clubs were active. We proposed to inform these directors of the varying degrees of physical blindness and the limitations imposed by the lack of vision. But more than this, we wanted to present the positive side of the picture, hoping thus to dispel some of the inaccurate ideas held by many sighted persons.

As proposed, the group activities coordinator visited the centers, observed the programs, and explained to the directors how the visually handicapped person might function in the existing program. In the few instances that would call for special, adapted equipment, such as braille bingo boards and playing cards, the coordinator offered the loan of such supplies from the Mecklenburg Association for the Blind. The coordinator also left some brochures for the club members. These contained some essential points on behavior with blind persons.

The next step was to inform our clients of this opportunity. Several immediately responded to the announcement. The coordinator told each one that she would take him individually to his first meeting and then go with him successively until he felt comfortable alone with the group. This seemed a better plan than introducing a group of visually handicapped persons at one time. The coordinator also informed the interested clients that the

agency would offer transportation for those who needed it.

Our plan was quite successful, and the sighted as well as the blind soon seemed to feel quite comfortable. The sighted persons of course had some questions; but as they learned to direct these to the blind individuals rather than to the coordinator, the atmosphere became much more relaxed. Several of our clients have now formally joined one of the clubs and are participating in nearly every phase of the program. Some play bingo or cards; others dance or just move about to socialize with their new friends. Field trips and picnics have also been a part of the agenda.

Those senior citizens who have become members of a Golden Age Club are quite enthusiastic about this new outlet. They feel an integral part of the group and essentially are treated the same as their sighted peers. Through periodic contact as a consultant with the directors and frequent contact with our clients, the indications are that these blind persons, by virtue of their own personalities and the cooperation of the sighted, have not felt excluded in any way.

We believe this project has been an effective instrument in making the sighted aware that many of the limitations of blindness are imposed by the sighted population.

Miss Justice is group activities coordinator, Mecklenburg Association for the Blind, Charlotte, North Carolina.

A Declaration of Independence for Geriatric Blind Persons

Robert L. Lessne

The geriatric blind population is made up of individuals who have the right to independence commensurate with their wants, needs, interests, capabilities, and potentials. Although their numbers will

reach an estimated 470,000 by 1985, older blind persons form a separate minority group which is painfully isolated from the mainstream of American life.

Because the loss of mobility is perhaps the most devastating consequence of blindness, orientation and mobility training is often a positive motivating force elevating the older blind person's confi-

dence in his remaining sensory modalities and increasing skills according to individual ability. Such instruction brings with it a new life. The withdrawn individual who becomes able once again to travel independently will often be more gregarious and dependency will be lessened. Some older blind persons who have lost employment will return to the world of work, thus

building economic stability and becoming taxpayers once again.

Mobility must be included as the key in the rehabilitation and care of geriatric blind persons. After a complete medical history, and with the physician's approval, the mobility specialist should formulate a program stressing travel independence. For some, the goals will be limited to independence in getting about their homes. Others will be encouraged to learn the long cane technique for greater travel mobility.

Despite these generally agreed upon principles, orientation and mobility training is not at present included under Medicare. The provisions of this program of health insurance provide for up to 100 medically necessary home health "visits" by nurses, physical therapists, home health aides, or other health workers if: "the services are ordered by a doctor and are furnished by a home health agency which takes part in Medicare; the care is for further treatment of a condition for which the person was treated in the hospital or extended care facility; and includes a plan for care by a doctor within 14 days of discharge from a hospital or extended-care

facility." Needless to say, although many blind persons who are 65 years of age or older are covered by Medicare, they cannot receive the orientation and mobility services so necessary for their return to normalcy.

Although the Vocational Rehabilitation Act does include provisions for mobility and orientation training, older blind persons are excluded because the program as it now stands only helps those who have work expectations and "feasibility." It is assumed that because of his age and his handicap the older blind person is unemployable, even though the acquisition of travel skills would allow many older blind persons to find either regular employment or sheltered employment. As it now stands, most mobility services in the United States go to non-geriatric blind persons.

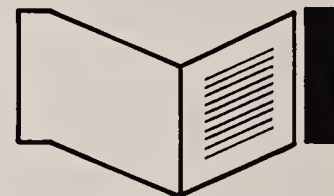
In addition to the many problems that they share with their sighted counterparts (health maintenance, housing shortages, and transportation difficulties), older blind persons have certain special problems which nevertheless can often be ameliorated through appropriate training and services. Both sighted and blind older per-

sons, however, also share being forgotten in the debates over welfare increases and the work ethic; they have no pressure voting block to push for their cause.

It seems all too obvious that a national mobility resource system should be established as soon as possible to help overcome this problem. This system should be patterned after the recognized paramedical disciplines of nursing, physical therapy, and occupational therapy. If the provision of mobility training were available under Medicare, such a system would allow appropriate health care agencies to contract with either an individual mobility specialist or a professional agency having mobility specialists on its staff. Fees would be established as with other paramedical disciplines.

A national lobbying committee should be formed to promote the inclusion of mobility instruction under the Medicare provisions of the Social Security Act. Anyone interested in working toward this goal should contact Robert L. Lessne, Director of Rehabilitation, Rehabilitation Resources, Inc., 7333 Coral Way, Miami, Florida 33155.

Current Literature



A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

From Shelter to Self-Reliance: A History of the Illinois Braille and Sight Saving School, by Walter B. Hendrickson. The Illinois Braille and Sight Saving School (Office of the Superintendent, 658 East State Street, Jacksonville, Illinois 62650), 1972, 235p. \$6.00. This history, covering the years 1848-1970, is the story of one particular residential school, but it also offers an overview of the evolving theories concerning the education of the blind. Although the book has no footnotes, Mr.

Hendrickson says in his preface that a fully-annotated typescript is in the Historical Room at the Illinois School and may be consulted by arrangement with the superintendent.

Laboratory Techniques for the Blind, by Dorothy Tombaugh. *The American Biology Teacher* (National Association of Biology Teachers, 1420 N Street, N. W., Washington, D. C. 20005), Vol. 34, No. 5, May 1972, pp. 258-260. The author, who teaches at Euclid (Ohio) Senior High School, has had six blind students in sophomore biology. She describes variations in laboratory procedure which have ensured full participation by these students.

Vision Screening of Children, by Jane S. Lin-Fu. Washington, D. C.: U. S. Department of Health, Education, and Welfare, Maternal and Child Health Service, 1971, 24p. 25 cents. (Available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.) The basic principles of vision screening for both school age and preschool children are discussed. Specific tests are described with manufacturers' addresses given in the Equipment Reference List.

When the Blind Begin to Read, by Marya Hunsicker. *Library Journal* (R. R. Bowker, 1180 Avenue of the Americas, New York,

New York 10036), Vol. 97, No. 20, November 15, 1972, pp. 3817-18. The author, a children's librarian, is also the mother of a legally blind child. Since whenever possible visually limited children are trained in the use of print and most books for beginning readers are in large type, she has found that there are many suitable books available in public libraries. She has prepared a selected reading list of large print titles for legally blind children, grades one through three. Type size is given for each title.

Speed Listening Skills by the Blind as a Function of Training, by Howard R. Grumpelt and Ellen Rubin. *The Journal of Educational Research* (DERS, Box 1605, Madison, Wisconsin 53701), Vol. 65, No. 10, July-August 1972, pp. 467-471. Tests were conducted with 66 blind high school students using both the time-compressed speech method and the rapid speech method. While training improved comprehension, the degree of improvement was not great.

Functional Asymmetry in the Reading of Braille, by Beate Hermelin and N. O'Connor. *Neuropsychologia* (Pergamon Press, Maxwell House, Fairview Park, Elmsford, New York 10523), Vol. 9, No. 4, 1971, pp. 431-435. Findings in tests of differences between right- and left-handed reading of braille are discussed in relation to training effects and cortical asymmetry.

Volunteers in a State Agency for the Blind, by Joseph Kohn. *Rehabilitation Record* (Social and Rehabilitation Service, Rehabilitation Services Administration, Washington, D.C. 20201), Vol. 14, No. 1, January-February 1973, pp. 17-20. Mr. Kohn is the executive director of the New Jersey Commission for the Blind and Visually Impaired. He describes the major activities of the more than 2,000 volunteers who work with the agency each year.

Focus on Self Help, by Kelly Turbyfill. *Performance* (The President's Committee on Employment of the Handicapped, Washington, D. C. 20210), Vol. 23, No. 4, October 1972, pp. 5-9. FOCUS is an acronym for Family Oriented Counseling for Understanding Sight Loss and the name of a proj-

ect started in Milwaukee, Wisconsin, to help the newly blind and their families adjust to the problems occasioned by blindness. The two young men who originated the project, Gordon Haldiman and Richard Pomo, have themselves lost most of their sight.

Social Security for the Blind, *Performance* (see address above), Vol. 23, No. 4, October 1972, pp. 1-4. Report on the development of the Social Security Administration's program to train and place blind persons as telephone service representatives answering questions relating to Social Security and, in some cases, initiating action.

Life's a Jigsaw Puzzle, by Patricia Parsons. *The New Beacon* (Royal National Institute for the Blind, 224 Great Portland Street, London W1N 6AA, England), Vol. 56, No. 667, November 1972, pp. 284-286. A blind British secretary describes her lengthy struggle for increased responsibility and her resultant professional achievement.

Biographical Sagas of Will Power, by Harry J. Baker. Vantage Press (120 West 31st Street, New York, New York 10001), 1970, 320p. \$6.50. Dr. Baker, who is a clinical psychologist, has written brief biographies of many exceptional individuals who achieved greatness despite handicaps. Among them are several famous blind persons, including Helen Keller, Louis Braille, and John Milton.

Haptic Judgments of Curvature by Blind and Sighted Humans, by Philip W. Davidson. *Journal of Experimental Psychology* (reprints available from the author at the Department of Psychology, Washington College, Chestertown, Maryland 21620), Vol. 93, No. 1, 1972, pp. 43-55. Report on three experiments investigating the relationship between active handling and the haptic perception of curves.

A Pound of Clay and a Pair of Hands, by David Castleton. *St. Dunstons Review* (191 Old Marylebone Road, London NW1 5QN, England), No. 635, November 1972, pp. 10-13. British veteran Stewart Spence, blinded in World War II, finds pottery-making an absorbing hobby.

Twins—With One Sad Difference, by Bard Lindeman. *Today's Health* (American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610), Vol. 50, August 1972, pp. 48-53. Illustrated story of the Rubenstein twins of Santa Monica, California. One of the twins, who are now nine years old, is blind.

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind, prepared by the editors.

Agency Administration

Handbook of Special Events for Nonprofit Organizations, by Edwin R. Leibert and Bernice E. Sheldon. Association Press (291 Broadway, New York, New York 10007). \$12.95. A step-by-step guide and reference tool for public relations personnel and administrators for planning and carrying out such special events as an anniversary celebration, conference, testimonial dinner, fund-raising kick-off, etc.

Hospital Medical Records: Guidelines for Their Use and Release of Medical Information. American Hospital Association (840 North Lake Shore Drive, Chicago, Illinois 60611). \$2.50. A booklet designed to guide the individual hospital in developing a policy guide for the maintenance of its records. Useful models of procedures and policies for dealing with third-party requests for information and with insuring the confidentiality of computerized records.

Planning Aid for Special Events. Reymont Associates (29 Reymont Avenue, Rye, New York 10580). \$2.00. A 250-point checklist for public service organizations planning major special events, including a special section on dealing with the press, radio, and television.

Voluntary Giving and Tax Policy: Charity Is Not a Loophole. National Assembly of Social Policy and Development, Inc. (345 East 46th Street, New York, New York 10017). 20p. 25 cents. An Official Position Statement approved by the Assembly's Board of Directors, October 12, 1972.

PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

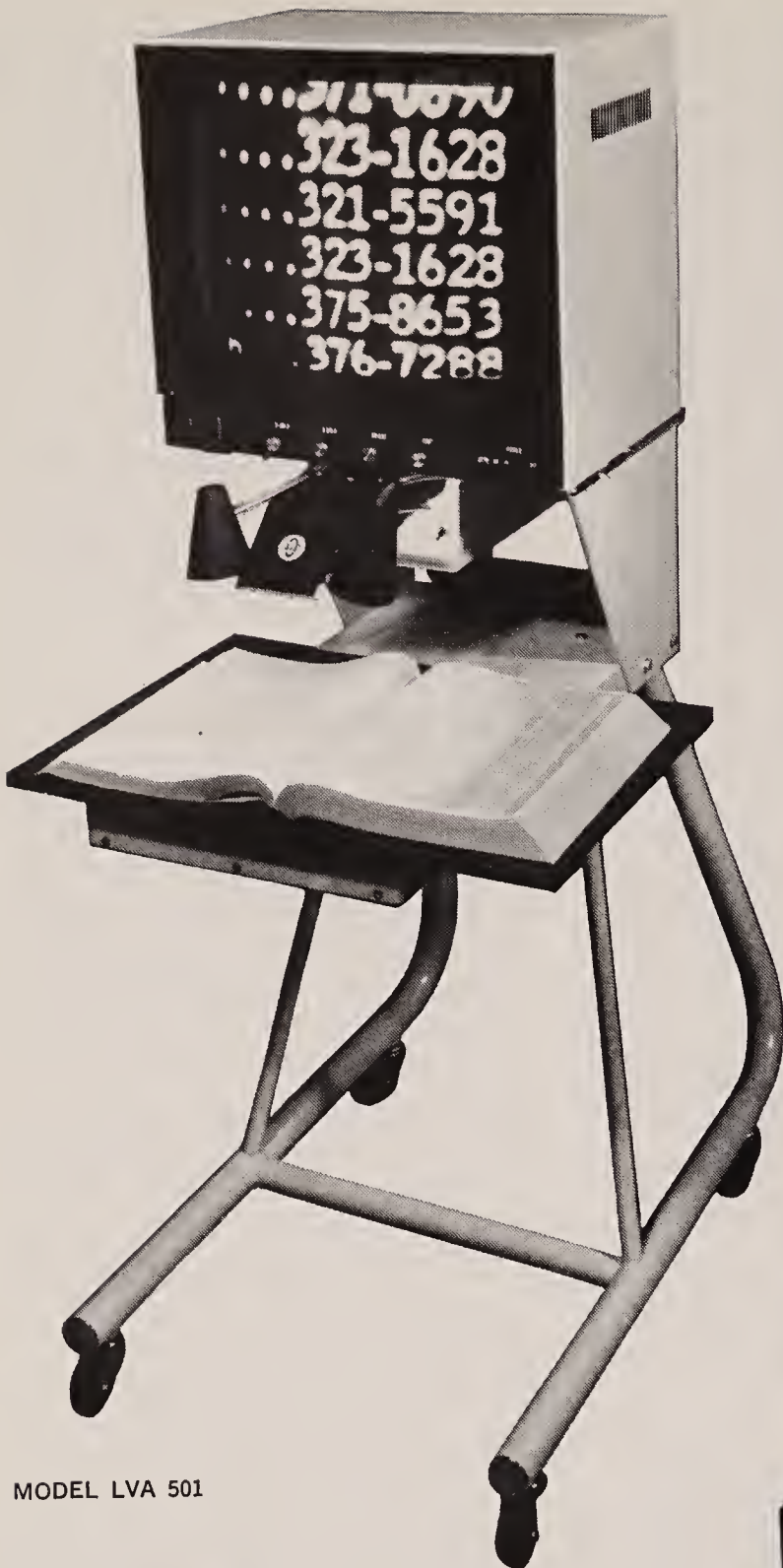
Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

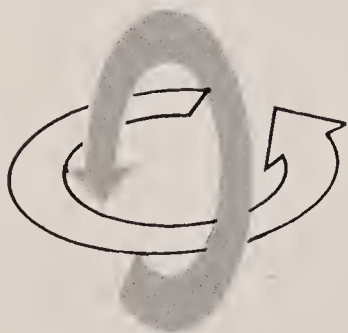
FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)

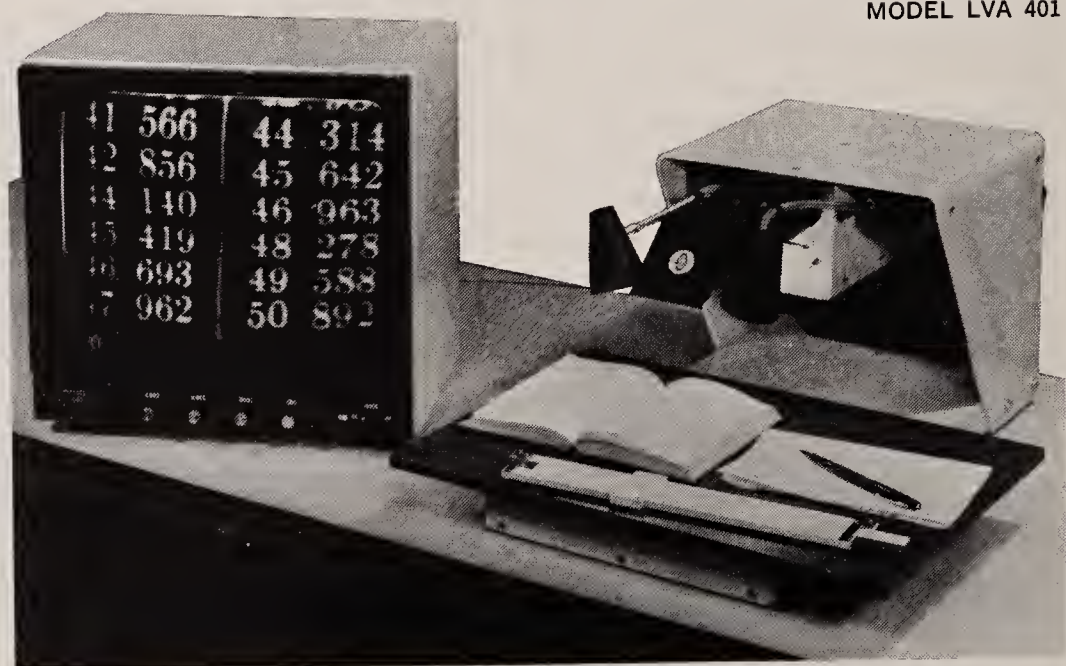


MODEL LVA 501



PELCO
SALES
INC ●

351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402



MODEL LVA 401

Aging

The Elderly Aid the Elderly: The Senior Friends Program, by Naomi Breslau and Marie R. Haug. *Social Security Bulletin* (U.S. Social Security Administration; Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Vol. 35, No. 11, November 1972, pp. 9-15. Report of a demonstration project operated by the Catholic Charities of the Archdiocese of Cincinnati in which eligible elderly persons seeking part-time work served as senior companions for the less capable aged who needed companionship and care. The goals of the project, to provide meaningful employment and job satisfaction, were reached.

First International Course in Social Gerontology. International Center for Social Gerontology (167 rue de Courcelles, Paris 17, France), 1970. 190p. \$4.00. Papers delivered at the 1970 ICSG conference in Lisbon, Portugal, by 12 experts on aging from France, Germany, Great Britain, Israel, Italy, the Netherlands, Portugal, and the United States. Subjects include health, housing, and economic initiatives for the elderly adopted in culturally varied Western societies and their impact on the social roles and status of the aging. Features two lectures each by Clark Tibbitts, director of the Division of Manpower Development, U.S. Administration on Aging, and Dr. Wilma T. Donahue, currently staff director of the Post-Conference Board of the White House Conference on Aging.

Personality Change in Aging: A Longitudinal Study of Community Residents, by Joseph H. Britton and Jean O. Britton. Springer Publishing Co. (200 Park Avenue South, New York, New York 10003), 1972. 222p. \$8.50.

Work and Aging: Second International Course in Social Gerontology. International Center for Social Gerontology (167 rue de Courcelles, Paris 17, France), 1971. 251p. \$4.00. Papers delivered at the 1971 ICSG conference in Florence, Italy, by 14 experts on aging from the United States, the U.S.S.R., and Western Europe.

Attitudes

Changes in Children's Attitudes Toward the Physically Handicapped, by Jacqueline

Rapier, Ruth Adelson, Richard Carey, and Katherine Croke. *Exceptional Children* (Council for Exceptional Children, Jefferson Plaza Suite 900, 1411 South Jefferson Davis Highway, Arlington, Virginia 22202), Vol. 39, No. 3, November 1972, pp. 219-223. An assessment was made of changes in attitude of 152 elementary school children as a result of an integrated school experience. After integration nonhandicapped children had developed a more positive attitude toward the orthopedically handicapped.

Consumerism

Alternatives for Community Education, by Francis A. J. Ianni. *Perspectives on Education* (Teachers College, Columbia University, 1234 Amsterdam Avenue, New York, New York 10027), Vol. 5, No. 2, Winter/Spring 1972, pp. 16-23. A chronological survey of, with the social and educational rationale for, the programs of the Horace Mann-Lincoln Institute of Teachers College, which has experimented with a variety of community education and action programs.

Strategies to Make Bureaucrats Responsive, by Delbert A. Taebel. *Social Work* (National Association of Social Workers, 49 Sheridan Avenue, Albany, New York 12210), Vol. 17, No. 6, November 1972, pp. 38-43. Since pressure politics and decentralization have been unsuccessful in changing the bureaucracy, the author suggests four alternatives—a competitive bureaucratic system, a more diversified and positive input by clients, self-help programs, and the “unconditional surrender” of unresponsive agencies. These strategies take bureaucratic stresses into account and aim to make clients less dependent on bureaucrats.

Directories, Catalogs, Lists

1972-73 Membership Directory. National Audio-Visual Association (3150 Spring Street, Fairfax, Virginia 22030). Single copies free. NAVA is the national trade association of the commercial audiovisual industry. The directory includes descriptive listings of more than 525 audiovisual dealers, and over 275 audiovisual materials producers, equipment manufacturers, and

manufacturers' representatives in all 50 states, Canada, and overseas countries.

1972 Survey of State Medical Association Committees Concerned With Rehabilitation. American Medical Association, Scientific Activities Division (535 North Dearborn Street, Chicago, Illinois 60610—c/o Spencer M. Varvter). 12p. Free. Includes the names of the chairmen and addresses of state medical associations and of state and county or community rehabilitation service directories.

Education

Fitting the Handicapped for Jobs, by Velma Krauch. *American Education* (U.S. Office of Education; Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Vol. 8, No. 5, June 1972, pp. 28-32. The story of Project Work, a career education program being conducted in the Fullerton Union High School District in the Los Angeles area involving about 250 handicapped students from the district's special education classes (educable mentally retarded, educationally handicapped, and orthopedically handicapped). After initial evaluation and training, students are placed first in on-campus jobs and then later in off-campus jobs—on-the-job training that is a part of each student's special high school curriculum.

Sex and Sex Education: A Bibliography, edited and compiled by Flora Seruya, Susan Losher, and Albert Ellis. R. R. Bowker Co. (P.O. Box 1807, Ann Arbor, Michigan 48106), 1972. 352p. \$14.95. Full bibliographical information on more than 2,300 titles arranged under the following broad subject categories: general works; biology of sex; family life; psychology of love and sex; sex and religion; sex attitudes, customs, and behavior; sex deviation; sex diseases and disorders; sex education; sex in literature; sex, love, courtship, and marriage techniques; sex reproduction; sexual ethics; social-sexual problems. The books are arranged alphabetically by author and date from the first recorded writings on the subject through 1971. Includes author-title, title-author, and subject indexes.

OPTISCOPETM

ENLARGER

A **NEW** MEDICAL INSTRUMENT
for the **LEGALLY BLIND** and **PERSONS** with **LOW VISION**.
A **NEW** MOTIVATIONAL AID for **LEARNING**.



- clear image
- full color and black and white
- completely safe
- portable
- low cost

\$295⁰⁰

C.O.D./f.o.b. Hempstead, N.Y.

New help for the legally blind. The OPTISCOPE ENLARGER makes reading a pleasure once again by displaying large areas of type. It holds books or newspapers of any size, and reproduces in full color and black and white.

The OPTISCOPE ENLARGER is a low maintenance, portable (weighs only 14 pounds), precision instrument designed for years of service.

For ordering, or for more information, write or phone:

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

Teaching Listening in the Elementary School, by Sam Duker. Scarecrow Press (52 Liberty Street, Box 656, Metuchen, New Jersey 08840), 1971. \$10.00.

USC Annual Distinguished Lecture Series Monographs in Special Education. University of Southern California (Bookstore, Order Department, Los Angeles, California 90007). Approx. 125p. each. \$3.00. A full listing of the contents of the five volumes in this series is available on request from USC.

Films

Points of Departure. Braille Institute of America (741 North Vermont Avenue, Los Angeles, California 90029), 28 min., color. A documentary showing the rehabilitation of a newly-blinded 17-year-old boy.

Legislation

The Down-to-Earth Truth About Big Spending, by Elliot L. Richardson. *Reader's Digest*, November 1972. An article by the former secretary of the U.S. Department of Health, Education, and Welfare, in which he discusses the present "realities" of government and the ways in which government programs can be improved in the light of these realities.

Medical Sciences

Biomedical Technology and the Detection of Birth Defects, by Sanford E. Gerber. *Rehabilitation Literature* (National Easter Seal Society for Crippled Children and Adults, 2023 West Ogden Avenue, Chicago, Illinois 60612), Vol. 33, No. 11, November 1972, pp. 322-25, 329. A discussion of the technics of measuring respiratory, brain wave, and cardiovascular activity and the application of the results in the detection of deafness and other congenital defects in newborn infants.

Counseling in Hereditary Eye Disorders, by Jules Francois. In *Contemporary Ophthalmology*, edited by John G. Bellows (Williams & Wilkins, 428 East Preston Street, Baltimore, Maryland 21202; 554p., \$34.75). This chapter in particular of the 55 in this volume is of interest to both medical and non-medical professionals who work with blind and visually handicapped persons.

Honey Urine. *MD Medical Newsmagazine* (MD Publications, 30 East 60th Street, New York, New York 10022), November 1972, pp. 239-247. A discussion of the history and current understanding of diabetes milletus or *madhumeha* (honey urine), as the ancient Indians called it. Diabetes is the fifth leading cause of death by disease in the United States, and the second leading cause of blindness.

Pamphlets

Employment of the Blind in Federal Service. U.S. Civil Service Commission, Office of Public Policy Employment Programs, Manpower Sources Division (Washington, D.C. 20415). A pamphlet explaining the Commission's policies and services, with information on how to apply. More complete general information is included in

Working for the USA (pamphlet 4). Also of use is the **Directory of Federal Job Information Centers**. All are available on request from the Civil Service Commission and its local offices.

Genetic Counseling. National Foundation-March of Dimes (P.O. Box 2000, White Plains, New York 10602). 22p. Single copies: free from local chapters; quantity orders: at nominal cost from the Public Education Division at the above address. Aimed at students, prospective parents, families, and others concerned about inherited birth defects, this booklet tells what genetic counseling is, who needs it and why, how it can help, and where to find expert assistance. The genetic and environmental factors that produce birth defects are also described.

Wider Horizons for the Senior Blind. National Federation of the Blind, Committee for the Senior Blind (1051 North Harper Avenue, Apt. 4, Los Angeles, California 90046). Free.

Four recent pamphlets available from the Cleveland Society for the Blind (1909 East 101st Street, Cleveland, Ohio 44106) are: **Be a Volunteer; Be Happy Seeing . . . as Your Eyes Grow Older; Have You Met This Man?** (on mendicancy); and **Ideas for Clubs, Schools, and Organizations**.

The President's Committee on Employment of the Handicapped (Washington,

D.C. 20210) has recently published the following four booklets: **About Jobs and Mentally Retarded People** (published with the National Association for Retarded Children); **Accessibility of Junior Colleges for Handicapped**; **He's Back: Business Backs the Disabled Veteran**; and **In Our Path: A Program Guide, 1972-73**.

Periodicals

Curriculum Product Review. McGraw-Hill (1221 Avenue of the Americas, New York, New York 10020). Controlled circulation. Bimonthly. For teaching supervisors, principals, and department heads.

Learning. Education Today Co., Inc. (1255 Portland Place, Boulder, Colorado 80302). Nine times a year. For elementary school teachers in leadership positions.

Synergist. National Student Volunteer Program—Volunteers in Service to America, ACTION (806 Connecticut Avenue, N.W., Washington, D.C. 20525). Three times a year. Vol. 1, No. 3, Fall 1972, for example, includes a special section of 12 articles on student volunteers around the world; "The Transportation Game," by Judy Sorum (pp. 55-63); and "Training More Effective Volunteers: A Mini-Manual," by Jean Lall (pp. 69-76).

Preschool Children

The Portage Project: A Model for Early Childhood Education, by Marsha S. Shearer and David E. Shearer. *Exceptional Children* (Council for Exceptional Children, Jefferson Plaza Suite 900, 1411 South Jefferson Davis Highway, Arlington, Virginia 22202), Vol. 39, No. 3, November 1972, pp. 210-217. This article describes an intervention program in which an individualized curriculum was prescribed for each of 75 preschool multiply handicapped children living in a rural area. All instruction took place in the home, including one 90-minute session per week conducted by a home teacher, with the parents carrying out the balance of the curriculum. The results of the project indicate that handicapped children can progress above their expected developmental rate and that parents can initiate, observe, and accurately record this change.

You can help a blind person read and write.

More than 100,000 people in this country are classified legally blind.

Yet at least half of them have enough residual vision to read virtually anything in print . . . and even write in their own hand, with the help of Apollo's Electronic Visual Aid.

Here's how:

In a system designed specifically for the partially sighted, Apollo employs high resolution television to compensate for visual impairments.

The sophisticated electronics of the EVA simultaneously magnify, intensify the brightness and raise the contrast of normal reading material to a level that is legible even to many severely handicapped people.

Even fine print and low contrast colors are electronically converted to a large, crisp, glareless black and white image on a highly refined 17" television monitor.

And the system is very easy to use.

The reading material or writing pad is placed on a 16" square "scanning table," which supports it in position under the camera. Easy fingertip control glides the table smoothly in all directions for reading or writing.

A zoom lens system provides for instant change of magnification, from 4X to 40X as required.

The entire system (table, camera stand and monitor) occupies about a 2½ foot square on the desk or table top, and is so portable it even comes with a travel case.

It can, in fact, be used with a conventional television receiver, if desired.

What does all this mean to the partially sighted?

Independence. No longer restricted to special large print editions, readers or talking books, he can read virtually anything in print. Including today's newspaper, today.

And he can write. Reports, personal letters, memoes, even checks, so he can keep his own accounts. Privately. **Independently.**

There is even a typewriter attachment available, so he can type, use an adding machine or any other office machine.

The EVA could well make the difference in getting or keeping a job for the partially sighted.

How can you help?

If you know anyone who is or is becoming partially sighted, make sure he knows about Apollo's Electronic Visual Aid . . . low vision clinics, schools and other service institutions are now making the EVA available to hundreds of individuals.

Or call or write Apollo for more information on how you can help him obtain his own EVA.

Prices start at under \$1,000; State and Federal funds are available for qualified people.



Apollo's Electronic Visual Aid.

Independence for the partially sighted.



A limited number of key areas are now open for representation.

Apollo Lasers, Inc., 6365 Arizona Circle, Los Angeles 90045 (213) 776-3343



■ The new physical education facility of the Kentucky School for the Blind, Louisville, was recently named the Paul J. Langan Physical Education Building. Mr. Langan was superintendent of the Kentucky school from 1945 to 1956. From 1956 to 1970, he was with the American Foundation for Overseas Blind, in New York City, Paris, and Beirut. Before his retirement in 1971, Mr. Langan was director of the Personnel and Referral Service of the American Foundation for the Blind, New York City.

■ In November 1972, the World Health Organization's new Study Group on the Prevention of Blindness met for the first time in Geneva, Switzerland. The creation of this international body reflects the growing recognition of blindness as an international problem. One of the several recommendations made by the group proposes that the World Health Organization, in consultation with the other United Nations agencies and with the non-governmental agencies concerned, should establish an appropriate mechanism for the coordination of international action in this field. It was also proposed that WHO should advise on international policies, should assist in the generation of resources, should help in the formation of international public opinion, and should channel the collection and dissemination of information about blindness and its prevention.

■ The American Foundation for Overseas Blind (AFOB), based in New York City, has entered into agreements with the governments of Indonesia and El Salvador for partnership programs to eradicate xerophthalmia, a blinding disease caused by a severe deficiency of Vitamin A. The disease is one of the major causes of blindness among preschool children in developing countries. The new programs will be keyed to supplementing children's diets

with a concentrated dose of the vitamin every six months.

The Indonesian program, which will be a two-year demonstration, will be initiated shortly in 20 rural areas of Java and will involve approximately 200,000 preschool children. AFOB is providing resources and technical assistance for evaluation of this program. The resultant findings will determine the direction of a national Indonesian program. UNICEF will supply the Vitamin A capsules for the demonstration.

In El Salvador, the arrangement is for a temporary program providing for mass distribution of Vitamin A capsules. The program will be initiated within the next few months with an estimated 400,000 preschool children. The capsules will be provided jointly by AFOB and the Spanish National Committee for the Blind. A third Vitamin A partnership agreement, between AFOB and the government of Guatemala, is pending.

The information gained from these experiences will be made available to other governments and international agencies that are developing Vitamin A programs. The prevention program, a recent addition to AFOB's other services for the blind, is directed by Susan T. Pettiss, Ph.D., with technical advice from a multidisciplinary committee of outstanding medical and public health experts.

■ The late Mary E. Switzer, a pioneer in the social and rehabilitation service field, was honored in January at a formal ceremony in which a federal building was renamed in her memory, the first in the nation's capital to be named for a woman civil servant. The Mary E. Switzer Memorial Building, located at 330 C Street, S.W., near the foot of Capitol Hill in Washington, D.C., houses the U.S. Social and Rehabilitation Service, of which Miss Switzer was the first administrator. A plaque commemorating Miss Switzer was un-

veiled at the ceremony. The memorial was created by an Act of Congress late last year.

■ The Commission on Accreditation of the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped has announced the accreditation of the Jewish Guild for the Blind (New York City), Recording for the Blind, Inc. (New York City), and Service to the Visually Impaired, State of South Dakota. Recording for the Blind is the first organization to be accredited under the new Standards for Production of Reading Materials for the Blind and Visually Handicapped.

■ Donald W. Flynn, Providence, Rhode Island, president of the Rhode Island Association for the Blind and board member of the National Accreditation Council, died of a heart attack on January 8, 1973.

■ Blind clients of Australia's National Guide Dog and Mobility Training Center now have a choice of light gold, dark gold, blue, green, red, and plain aluminum colored canes, in addition to the traditional white ones. The colored canes are only offered when the instructor and client fully agree that the individual's own safety is not dependent on a white cane. This innovation, which is being carefully monitored by the Center, was instituted for the benefit of those blind travelers who feel that there is an advantage in not carrying so noticeable a badge of their blindness as a white cane. Some fashion-conscious clients are also interested in colors other than white.

■ Four tapes in the Eskimo language are being recorded on cassettes for the use of blind Eskimo clients of the Canadian National Institute for the Blind in Labrador. A tape containing religious music performed by the Eskimo Choir at Nain, Labrador, will also be included.

Sensi-Quik

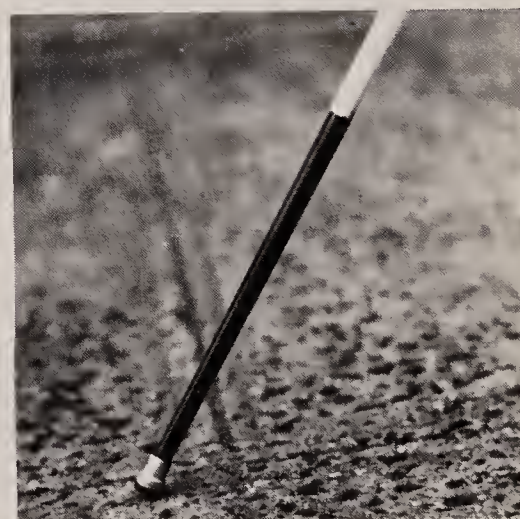
The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

■ Blind children in Chester County, Pennsylvania, are being helped by veterans in the alcoholic treatment unit of the Coatesville, Pa., Veterans Administration Hospital. Working as part-time volunteers at the county's special education school for multiply handicapped children, the veterans bind braille books, copy braille material on a thermoform machine, read and dictate material, and operate the braille typewriter. One patient taped an entire book in a recording studio, and another worked for a teacher of the retarded. The hospital, according to Dr. Hubert McShea, supervisor of the alcoholic treatment unit, considers the volunteer services good therapy for the veterans, while providing a valuable service to visually handicapped children throughout the county.

■ Computer Services for the Blind, Inc. (CSB), a public nonprofit corporation, has been established at the University of Louisville with \$172,000 provided by the State of Kentucky. CSB, one of the projects supported by the university's Perceptual Alternatives Laboratory, will operate the Audio Response Time Sharing System (ARTS) developed by Kenneth Ingham of the Applied Electronics Laboratory, Massachusetts Institute of Technology.

ARTS is a computing system which delivers, by telephone, a variety of services useful to blind persons: dictionary consultation; preparation of letters and manuscripts; bookkeeping; translation from print to braille; computer-aided instruction; and others.

■ A new leaflet, prepared and produced by the Seeing Eye, Morristown, New Jersey, is designed to correct some misconceptions that often block dog guide users from jobs in hospitals and keep many of them from visiting friends and relatives who are hospital patients. The American Hospital Association has distributed the leaflet, entitled "Seeing Eye Dogs in a Hospital Setting," to its 10,000 member-institutions.

■ On the occasion of their tenth anniversary, the volunteer professionals of New York City radio station WMCA's Call For Action are publishing the first com-

plete, updated information and referral guide to every public and private, non-profit agency available to help New Yorkers with a particular problem or complaint. This pocket-size guide is entitled *WMCA Call For Action: A Survival Kit for New Yorkers* (Quadrangle Books—\$1.95).

WMCA Call for Action is a cooperative effort which combines the power of the microphone (WMCA), the accessibility of the telephone, and the energies of 75 trained volunteer professionals who man telephones five days a week answering complaints, reacting to problems, and, in many cases, stepping in on behalf of the citizen until a solution is achieved. According to Mrs. R. Peter Strauss, national chairman of Call For Action, almost 400,000 troubled New Yorkers have been helped during the service's first decade. Many hundreds of thousands more are being served in 48 cities across the country by Call For Action offices which are patterned after the WMCA model.

Appointments

■ National Advisory Council on Vocational Rehabilitation, U.S. Department of Health, Education, and Welfare, new members: **Alfred Slicer** (chairman), director, Illinois Division of Vocational Rehabilitation; **Mrs. Effie M. McKerson**, Creek Valley Elementary School, Edina, Minnesota; **Paul R. Stabler**, Tribal Mental Health Coordinator, Oklahoma City Area Indian Health Service Advisory Board; **Dr. Larry R. Dickerson**, senior research scientist, Rehabilitation and Training Center, University of Arkansas; **Dr. Joseph Goodgold**, director of research and training, New York University Medical Center; **Mrs. Ruth M. Griffin**, associate professor and director of occupational therapy, Quinnipiac College, Hamden, Connecticut; and **Mrs. Barbara Ann Walker**, rehabilitation counselor, Richmond Trade Training Center, Richmond, Virginia.

■ National Accreditation Council for Agencies Serving the Blind and Visually Handicapped: **Richard W. Bleecker, Ed.D.**, associate director.

■ Arizona Division of Rehabilitation for the Visually Impaired: **William T. Ray, Jr.**, director.

■ California State Department of Rehabilitation: **Manuel S. Urena**, program manager for the blind.

■ Houston Lighthouse for the Blind: **Robert Crider**, assistant executive director.

■ Canadian National Institute for the Blind, Toronto: **Ross C. Purse**, assistant managing director (Mr. Purse will become managing director on September 1, 1973, and **Arthur N. Magill**, present managing director, will become national consultant).

■ Wisconsin Regional Library for the Blind and Physically Handicapped, Milwaukee: **Miss Marilyn Miller**, regional librarian; **Mrs. Christina Mitchell**, assistant regional librarian.

Awards

■ American Federation of Catholic Workers for the Blind, Klocke-Martin Award: **Dr. Peter J. Salmon**, executive vice president, Industrial Home for the Blind, and director, National Center for Deaf-Blind Youths and adults.

Coming Events

April 22-28 Council for Exceptional Children, 51st Annual International Convention, Dallas.

April 25-26 American Geriatrics Society, 30th Annual Meeting, Beverly Hills, California.

May 3-7 Association for Research in Vision and Ophthalmology, Annual Spring Meeting, Sarasota, Florida.

May 7-9 Southwest Regional Conference, National Rehabilitation Association, New Orleans.

May 7-10 National Braille Association, National Conference, San Francisco.

May 13-16 General Council of Workshops for the Blind, Spring Workshop, Biloxi, Mississippi.

May 13-16 Southeast Regional Conference, National Rehabilitation Association, Winston-Salem.

May 20-23 Mid-Atlantic Regional Conference, National Rehabilitation Association, Philadelphia.

May 21-26 International Center for Social Gerontology, Fourth International Course ("Applied Gerontology: Recruitment and Training of Personnel"), Oslo, Norway.

May 23-25 Great Plains Regional Conference, National Rehabilitation Association, Bismarck.

May 27-30 Medical Library Association, Kansas City, Missouri.

May 27-31 National Conference on Social Welfare, 100th Annual Forum, Atlantic City, New Jersey.

May 28-30 American Ophthalmological Society, 109th Annual Meeting, Hot Springs, Virginia.

May 28-31 American Orthopsychiatric Association, 50th Annual Meeting, New York City.

May 29-June 1 Northeast Regional Conference, National Rehabilitation Association, Yarmouth, Nova Scotia.

June 3-5 Great Lakes Regional Conference, National Rehabilitation Association, Milwaukee.

June 6-8 National Public Relations Council, Public Relations Institute, Chicago.

June 10-14 Special Libraries Association, Pittsburgh.

June 11-14 Pacific Regional Conference, National Rehabilitation Association, Honolulu.

June 18-29 Workshop in Rapid Reading of Braille, Culver-Stockton College, Canton, Missouri.

June 23-27 American Medical Association, 122nd Annual Meeting, New York City.

June 24-28 Israel National Society for Rehabilitation of the Disabled, International Symposium on the Disabled Adolescent, Bat Yam, Israel.

June 24-30 American Library Association, Annual Convention, Las Vegas.

June 25-29 American Home Economics Association, Atlantic City, New Jersey.

June 27-30 American Optometric Association, 76th Annual Congress, San Francisco.

July 22-25 American Association of Workers for the Blind, Biennial Meeting, Cleveland.

August 14-18 Blinded Veterans Association, 28th National Convention, Atlantic City, New Jersey.



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

**MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR**

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation

NOW SHE CAN READ...



and write with ease. With the Visualtek Read/Write System, the partially sighted person easily reads books, magazines, newspapers, and other types of printed materials. Its simple controls are "human engineered" . . . **Out front where they belong** . . . for fast adjustment, writing, typing, and even viewing blackboards and wallcharts!

Hundreds of Visualtek systems are now being used on the job, at home, and in schools by people from all walks of life — teachers, homemakers, lawyers, rehabilitation counselors, businessmen, students, etc.

Why did they choose the Visualtek way? Highest magnification (up to 60x); excellent contrast and enhancement of print; lightest in weight; options designed to meet their needs; and, significantly Better Service.

Write or phone today for information and the location of your nearest Visualtek representative.

VISUALTEK

1901 Olympic Blvd. — Santa Monica — Calif. 90404
Phone (213) 829-3453 or 870-8006

HELPING THE PARTIALLY BLIND TO BECOME PARTIALLY SIGHTED

RECENTLY PUBLISHED BY AFB

an introduction to working with the aging person who is visually handicapped

Recent studies reveal that although blind persons over age 65 constitute more than 50 percent of the total blind population in the United States, only nine percent of our nation's special services for the blind are directed toward meeting their needs. Resistance to working with the elderly blind person is based on a multitude of factors. Not the least of these is the lack of available literature on the subject, which has meant that professionals often do not know how they can be useful to the older blind person.

An Introduction to Working with the Aging Person Who is Visually Handicapped is designed to be used by anyone whose professional or personal life brings him into contact with aging blind persons. It deals with blindness and visual impairment as they affect the later phases of life and presents techniques for dealing with the special problems of the elderly person who is blind or visually handicapped. Information is geared to assist the reader, professional or layman, in working more comfortably and more efficiently with the older blind individual.

The handbook begins with "Who Is the Aging Blind Person and How Can You Help Him?", a section which presents some background information on blindness, defines the aging blind person, and discusses the effects of blindness on his life. General advice is provided for the helping person.

Moving from theory to practice, "Personal Contact" explains what to do when actually meeting a blind person and how to teach him specific skills for daily living. Further aid, available from agencies for the blind and for the aging, is outlined in the section on "Rehabilitation Services."

"Solving Other Problems" provides sources of aid for the aging blind person in the areas of income, housing, need for medical services, and other personal and social services. It tells him where to obtain aids and appliances, talking books and other reading materials, and other aids.

Finally, there is a selected list of reading material and a listing of national organizations which do not deal exclusively with aging or blindness but do offer services which may be useful to the older blind person.

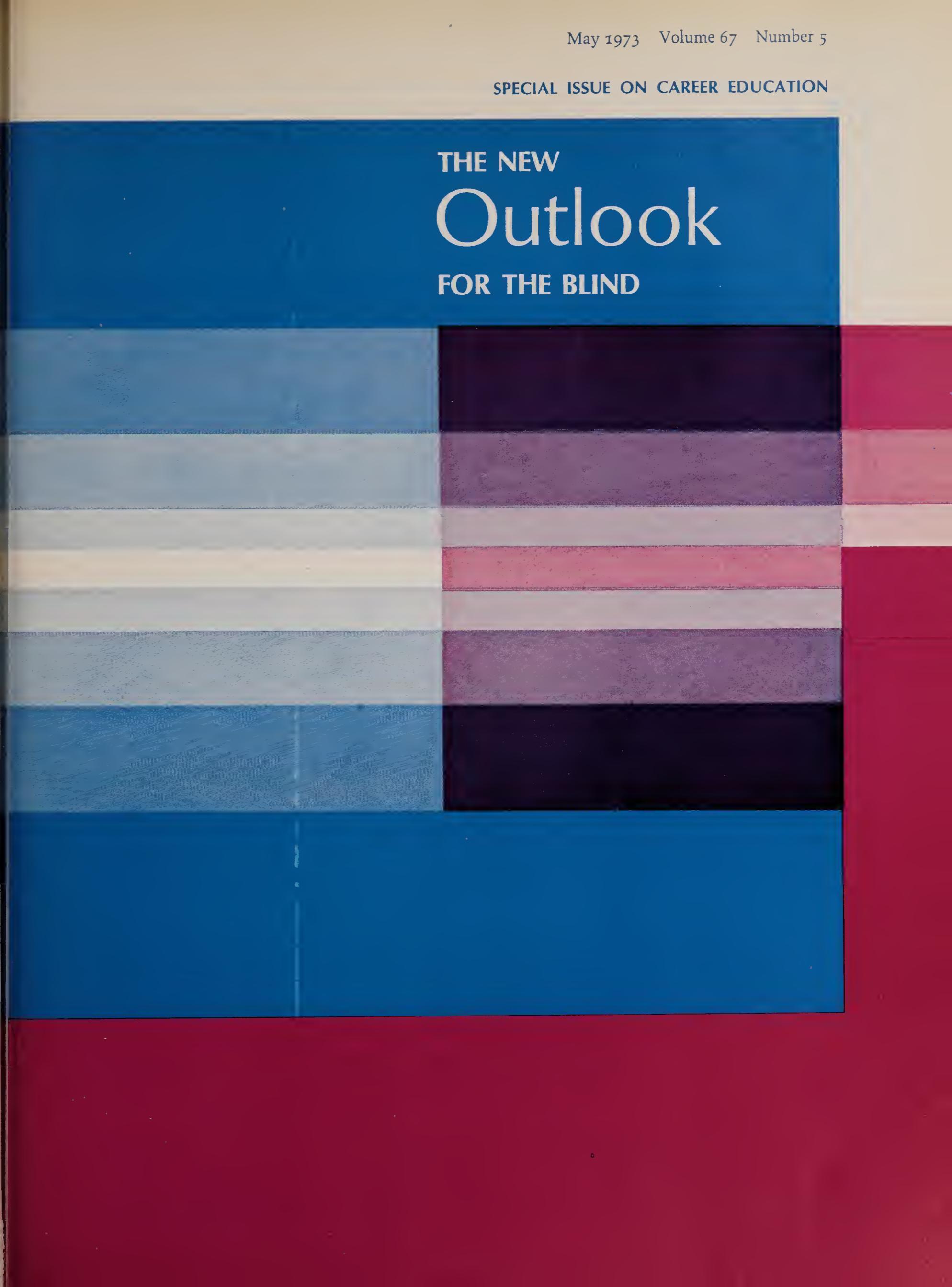
**AN INTRODUCTION TO WORKING WITH THE
AGING PERSON WHO IS VISUALLY HANDI-
CAPPED. Price: \$3.00**

All orders must be accompanied by payment. Send orders to Publications Division, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011.

May 1973 Volume 67 Number 5

SPECIAL ISSUE ON CAREER EDUCATION

THE NEW
Outlook
FOR THE BLIND

The cover features a large, abstract geometric design. It consists of a grid of horizontal bands of various colors, including shades of blue, purple, red, and white. The bands are of different widths and are arranged in a way that creates a sense of depth and movement. The top section of the cover is a solid blue color, which serves as a background for the title text. The bottom section of the cover is a solid red color, which also serves as a background for the title text. The overall design is modern and minimalist.

THE NEW Outlook FOR THE BLIND

May 1973 Volume 67 Number 5

Articles

SPECIAL ISSUE ON CAREER EDUCATION

- 193 Career Education: A New Dimension in Education for Living
 Harvey E. Wolfe
- 200 Career Education and Visually Handicapped Persons:
 Some Issues Surrounding the State of the Art
 John E. Uxer, Ed.D.
- 207 The Implications of Career Education for Visually Handicapped
 Students
 George E. Klinkhamer
- 210 Career Opportunities for Visually Handicapped Persons in Maryland
 Isaac P. Clayton
- 216 Work-Experience Programs in Connecticut, Pennsylvania, and
 California
- 216 A Diversified Cooperative Work-Experience Program
 for Blind and Multiply Handicapped Blind Students
 Judith T. Tremble and Lawrence F. Campbell
- 219 Learn to Earn: A School Work-Experience Program
 Dennis J. Huber, A.C.S.W.
- 221 The Self-Reliance Institute: Filling the Gap in
 Work Experience
 Marilyn Laurence

Departments

- 227 Hindsight
- 229 Review—New Life for Millions—*Russell J. N. Dean*
 A World to Care For—*Howard A. Rusk, M.D.*
 But Not on Our Block—*Henry Viscardi, Jr.*
- 233 Comment—Teaching Blind Illiterates to Read—*Claudell S. Stocker*
 How Many of Us Are Extraordinary?—*Carl T. Rodgers*
- 237 Letters to the Editors
- 238 Current Literature
- 239 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to 75c according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief

M. Robert Barnett

Managing Editor

Patricia Scherf Smith

Associate Editors

Mary Ellen Mulholland
Michael E. Monbeck

Career Education: A New Dimension in Education for Living

ABSTRACT: After discussing the recent increase of interest in career education, the recommendations of the National Advisory Council on Vocational Education, and the goals established by the U.S. Office of Education, the author describes four different career education models (school-based, employer-based, home community-based, and residential-based). The career education sequence used in the Los Angeles Unified School District is described and discussed. Finally, the efforts of the National Task Force on Career Education of the American Foundation for the Blind are discussed and one state's response is described as an example of a coordinated, statewide approach to career education for visually handicapped persons.

This issue of the *New Outlook for the Blind* is devoted to the subject of career education. The term is relatively new and there are various definitions scattered throughout this and succeeding articles. It is not really a new concept, but one that is currently receiving a new and more positive emphasis.

It is especially important for persons working with visually handicapped youngsters to become aware of this new emphasis, because there are various little-used governmental funds that may be available, especially through recent amendments to the Vocational Education Act, that could be used with handicapped children.

Before mentioning some of the current thrusts toward expanding and developing career education programs for visually handicapped persons, let me discuss the development of career education in general.

□ Nearly 25 percent of the young men and women who turn 18 each year are not educated to the level of adequate employability through our current educational system. This represents a colossal waste of money and human resources. At the heart of this problem is an all pervasive national attitude that regards vocational education as "something for somebody else's children." This attitude has strongly affected the federal education establishment which invests 14 dollars in the nation's universities for every dollar it invests in the nation's vocational education programs. This attitude is in turn reflected in school districts which concentrate on college preparatory and general programs—in complete disregard of the fact that high school still represents the only transition to the world of work for 60 percent of our young people.

The number of jobs which the unskilled can fill is declining rapidly. The number of jobs requiring a liberal arts college education, while growing, is increasing far less rapidly than the number demanding a technical skill. In addition, educating youth for employment costs far less than preparing them for the college education that many of them will never achieve (indeed, that they may not even need) and then trying to salvage them through remedial training later. The National Advisory Council on Vocational Education believes that

HARVEY E. WOLFE

Mr. Wolfe is a specialist in career education, Program Planning Department, American Foundation for the Blind, New York City, and the guest editor for this issue of the New Outlook for the Blind.

Attitudes Toward Vocational Education

Little demand for the unskilled

the federal government should invest at least as much money in reducing the flow of untrained youth into the job market as it invests in attempting to reduce the pool of unemployed adults. Most of the federal investment, it feels, should be concentrated in developing and paying for more global career education programs rather than in those which prepare *only* for further education. This should be done throughout high school, community college, and other post-secondary school programs.

For example, our high schools should be comprehensive and within them all students should be provided with multiple choices or options. A separate vocational school or a distinct vocational track should be the exception, not the rule, in our technological society. All students must be allowed to move into and out of vocational-technical programs and to select mixtures of vocational-technical and academic courses according to their interests and abilities. Students should also be able to go to school the year round. Why should our school plants sit idle for three months of the year?

□ Maximizing each individual's potential is the country's historic mandate. To fulfill that mandate in the 1970's, the National Advisory Council on Vocational Education recommends that the nation take four basic steps. First we must "recognize that employment is an integral part of education. Every secondary school should be an employment agency, and part-time employment should be a part of the curriculum." Essential to such a curriculum are communication skills, mathematics, and some ability in problem solving. Not so widely recognized, but probably of equal importance, are the habits and attitudes which add up to employability. More people lose jobs because of their inability to get along with their co-workers and supervisors than because of a lack of technical knowledge.

Second, we should "give priority to programs for the disadvantaged and handicapped without separating them from the mainstream of education." Third, we should "encourage parents and students to participate in the development of vocational programs." And finally, we need to "establish residential schools for those who need them most." Residential schools must not be allowed to become little kingdoms unto themselves, that is, places where we may hide those people whom we regard as objectionable in the mainstream of life activities (National Advisory Council on Vocational Education, 1969-1971).

Vocational and technical education programs, as an integral part of career education should be available to adults through high schools and community colleges. The rapidity with which Americans change jobs in their lifetime must be matched by the variety and accessibility of the whole spectrum of training programs through which new skills and subject matter can be learned at any age in all localities. It is estimated that an individual coming into the work force in 1972 will change employers ten to 12 times in his lifetime. The American work ethic is also changing. An increasing number of workers see no virtue in holding jobs they consider menial or unpleasant. More and more people reject such work—even if they can get no other job.

□ Career education, as a comprehensive educational program focused on careers, begins in early childhood and continues throughout the adult years. All

Providing multiple options

NACVE Recommendations

Priorities

Ten or more employers

Career Education

types of occupations and all levels of occupational endeavor are contained within its parameters. It provides for the focus of the educational system upon career development, thereby expanding options for individuals and helping them achieve self-determined objectives. The following goals for career education have been identified by the U. S. Office of Education.

1. To make all education subject matter more meaningful and relevant to the individual through restructuring and focusing it around a career development theme.
2. To provide all persons the guidance, counseling, and instruction needed to develop their self-awareness and self-direction; to expand their occupational awareness and aspirations; and to develop appropriate attitudes about the personal and social significance of work.
3. To assure the opportunity for all persons to gain an entry-level marketable skill prior to their leaving school.
4. To prepare all persons completing secondary school with the knowledge and skills necessary to pursue further education or to become employed.
5. To provide services for placing every person in the next step in his development whether it be employment or further education.
6. To build into the educational system greater utilization and coordination of all community resources.
7. To increase the educational and occupational options available to all persons through a flexible educational system which facilitates entrance and re-entry into the world of work or the education system.

USOE goals

Career education must accommodate individual differences through a continuous experience-centered and evaluative process. It must provide for both the unique and common needs of all groups and individuals. To summarize, career education allows children, youth, and adults to: 1) learn about the world of work, 2) explore its major occupational clusters, 3) find their place in the world of work, 4) prepare for and find employment, 5) acquire skills for advancement, and 6) provide retraining for new jobs as old ones become obsolete. Career education, therefore, has implications for instruction, management, and professional development, as well as guidance and counseling.

Summary

□ Through support from the U.S. Office of Education, four different career education models (school-based, employer-based, home community-based, and residential-based) are being developed. All of these are being tested in real situations and then are being refined to make them transportable to other suitable locations.

Career Education Models

The employer-based model is being developed by two research concerns, the Far West Laboratory, Berkeley, California, and Research for Better Schools, Philadelphia. It meets the individual learning needs of young people of the junior high school through community college age who desire a significant alternative to their present educational situation. This model is being implemented and directed by a group of public and private employers.

Employer-based

The home community-based model is being prepared by the Education Development Center, Newton, Massachusetts. Its purposes are to provide educational delivery systems for the home and community which will increase the

Home community-based

career opportunities for individuals whose circumstances make access to regular educational institutions difficult. It will also provide new career education programs for adults, particularly the housewife.

The residential-based model is being developed in Glasgow, Montana, and is based on educating the entire family in the options and possibilities of career education. About 180 families are at the site to participate in developing this model.

Residential-based

A school-based, comprehensive career education model is being developed at the Center for Vocational and Technical Education at the Ohio State University. Curriculum materials will be tested in six locations: Atlanta; Hackensack, New Jersey; Los Angeles; Mesa, Arizona; Jefferson County, Colorado; and Pontiac, Michigan. It is hoped that the program will have a specially adapted section aimed at meeting the needs of visually handicapped children. The aims of this model are to: 1) restructure the entire educational program around real life activities; 2) integrate academic knowledge and skills with occupational training; 3) assure that each exiting student will be prepared for further career education or for entry into an occupation; 4) provide a program for each student that is relevant for his becoming a productive, contributing citizen; and 5) incorporate community resources and nonschool educational opportunities into the program.

School-based

In this model, eight elements of career education are tied into a grade-level matrix leading to eight corresponding terminal characteristics or desired behavior outcomes. These are career awareness, leading to career identity; self awareness to self-identity; appreciations and attitudes to self social fulfillment; decision-making skills to career decisions; economic awareness to economic understandings; tool and process applications to employment skills; employability skills to career placement; and education awareness to educational identity. These elements and outcomes are achieved through a series of carefully identified experiences and activities at K-3, 4-6, 7-9, 9-10, and 11-12 grade-level programs. Guidance, counseling, and placement activities serve as catalysts throughout the entire program (Taylor, 1972).

Eight-element grade-level matrix

□ The career education sequence for kindergarten through grade 12 developed by the Los Angeles Unified School District focuses on four major phases: career awareness, career exploration, career orientation, and acquisition of specific career competencies. In the first phase, pursued at the K-6 level, the principal goal is to develop an awareness of the personal and social significance of work. Each student is helped to become more aware of himself, of his personal aspirations and abilities, and of the spectrum of careers available to him. At the K-3 level, children develop a degree of career awareness consistent with their maturity, i.e., the entire world of work is covered under two career clusters, goods and services. Opportunities for developing awareness is woven into existing activities and stresses recognition of the total life-style of workers.

Los Angeles Unified School District

In grades 4-6, the increased sophistication of the students allows for the clustering of occupations into the areas of industry, commerce, social science, services, and the arts. Students explore all of these areas through curricular experience. The nature of occupations, the role of interests and aptitudes in

career choices, and the internalization of a value system involving the world of work are emphasized.

In the second phase, involving grades 7-8, the emphasis is upon career exploration. Twelve clusters, extracted from the five used at the 4-6 level, are identified: natural resources, construction, manufacturing, transportation and communications, trade and finance, government, education, health and welfare, personal services, product services, the arts and humanities, and recreation and entertainment. Students have an opportunity to explore at least eight of these clusters through highly detailed studies carried out at the rate of two per semester. Exploration includes field trips and "hands-on," as well as simulated, experiences.

The objective in phase two is to provide all students with exploration-observation experiences designed to assist them in evaluating their interests, abilities, values, and needs in relation to their career and life roles. Such an evaluation can then be used to identify several careers for deeper exploration and career orientation in the third phase.

The third phase, primarily grades 9-10, focuses on more in-depth exploration and beginning skill-competencies in selected careers and career areas. Additional counseling and guidance are used to assist students in selecting career specialties for further development in grades 11-12. Specifically, grade 9 is seen as a multiple-choice opportunity for students. A student who has determined that he will exit from the school situation early will be guided into a career preparation unit. Students who plan to continue their secondary education will have two further options: to explore the career clusters not utilized in grades 7-8 or to enter in-depth exploration and career orientation relevant to their selected careers.

For the final high school grades, the fourth phase, the goal is to provide intensive preparation in a career objective of the student's choice. Curricular provisions are also made for students who choose to complete higher education requirements. Guidance and counseling is intensified at these levels to assist in job placement, continuation of formal career training, or continuation into higher education. Through continued guidance, follow-through on all students leaving high school provides information to be utilized in refining the program further. It should be noted that 83 occupational divisions, selected from the *Dictionary of Occupational Titles*, have been identified for development. Each student undertakes an in-depth exploratory process of one of these divisional groups before undertaking the development of specific skills (Sampieri, 1972).

□ Career education programs, which should include visually handicapped persons, must be geared to promote good work habits and the acquisition of skills and knowledge that can be used in the present labor market. The best career training program is worthless for the student if it does not produce a marketable skill, self-respect, pride, and the probability of continuing employment.

In program development for blind and visually handicapped persons, we must remember that everyone is handicapped in one way or another. Visually handicapped persons are *just people* with their own definite assets and liabilities. Indeed, their needs do usually interface very nicely with regular main-

Career exploration

Objective

Career orientation

Acquisition of competencies

Programming for the Visually Handicapped

stream programs and these programs should, therefore, be utilized whenever possible. Also, it should be remembered that visually handicapped persons, like everyone else, have the right to fail in career pursuits, and the failure itself can be a valuable learning experience.

The 1968 amendments to the Vocational Education Act of 1963 include the mandate that ten percent of the federal funds allocated under Part B of this Act are to be used to provide vocational education for the handicapped. During the 1970-1971 fiscal year, only a small percentage of these funds were utilized among the states; further, only a very minute part of those funds were utilized for visually handicapped persons. Eleven states reported projects under the vocational education amendments. The visually handicapped were very minimally involved in the projects of eight of these states. Four, California, Connecticut, and New Mexico, reported projects designed exclusively for visually handicapped persons. (Since each state was asked to report on three projects considered superior, other unreported projects involving the visually handicapped may well have existed.)

The vocational education amendments of 1968 require state vocational education planning to provide for cooperative arrangements with the state special education agency and the state rehabilitation agency, since each can provide the special services, expertise, and often the funding necessary to build comprehensive programs.

□ In 1972, the American Foundation for the Blind called together a National Task Force on Career Education, comprised of representatives from the fields of blindness, rehabilitation, and special, vocational, and general education. Out of the Task Force's discussions grew recommendations that the Foundation create an ongoing program of advocacy on behalf of blind persons to work toward their inclusion in career education programs and to develop materials and methods of giving them the best possible career education.

As one of the first steps in that career education program, the Foundation, in January 1973, brought together state leadership in special and vocational education and rehabilitation from ten states for a working conference in New Orleans. They discussed ways of developing new and expanding old programs for blind persons and integrating them into existing or developing programs of career education.

□ Illustrative of the conference are the discussion and future plans of one of the participating states. The three representatives spent much of their time at the New Orleans meeting discussing and outlining the current status of career education for blind children in their state; then they drew up plans for the future. Currently, the state rehabilitation service, through its special section for blind children, offers guidance, counseling, and referral information to parents and makes vocational rehabilitation counselors available to all school districts and the residential school. The special education division, in addition to the provision of the usual services, assists local school districts in developing and funding public school programs for visually handicapped children from the age of three through 21 years. There is already a liaison consultant between the vocational education and special education programs in the state, and the vo-

Ten percent of funds

Projects in eight states

National Task Force on Career Education

Working conference

One State as an Example

cational education section, through its "special needs section," administers federal funds that are used for programs for the visually handicapped. However, the representatives of this state agreed on several priorities to improve services for the visually handicapped, and even set up a timeline for implementation of its priorities (Figure 1).

The priorities they established were to: 1) establish a state task force for the development of career education for the visually handicapped that would consist of representatives of vocational education, special education, state services for the blind, public school programs, the residential school, and others (consumers, service groups, university faculty) and that would meet once a month; 2) identify the resources, responsibilities, and objectives of each of these agencies as they relate to career education for the visually handicapped, and then produce a publication that identifies the goals, objectives, responsibilities, and services of each agency concerned with the visually handicapped; 3) develop a strategy to assist local school districts to plan and implement career education for the visually handicapped and to identify major objectives, procedures for implementation, and a commitment of fiscal and personnel resources; and 4) provide assistance in the evaluation and dissemination of career education models.

Several other state representatives planned similar task forces or coordinating bodies, all aimed at getting the three state units together. As these states prepare plans and implement programs, they will be reported in various publications. It is hoped that out of some of these states will come plans that can be useful to other states, with the ultimate improvement and expansion of career education programs for all visually handicapped persons.

National Advisory Council on Vocational Education. Annual reports 1-5, 1969/1971.

Sampieri, R. A. Comprehensive career education model: Thrust for education leadership. *Association of California School Administrators*, 1972, 1(5), 10-14.

Taylor, R. E. Perspective on career education. A paper presented to the Oregon Association of School Administrators, Oregon State University, March 30, 1972. (The Center for Vocational and Technical Education, Ohio State University, Columbus, Ohio.)

FIGURE 1
One State's Timeline
for Implementation

February 1973	1
March	2
April	
May	
June	
July	3
August	
September	
October	
November	4
December	
January 1974	
February	5
March	6

1. Selection of task force members.
2. Initial meeting of the task force.
3. Publication prepared.
4. Develop strategy to assist local career education services.
5. Request project proposals from school districts.
6. Local project proposals due.

References

National Conference Summary Is Available

A limited number of copies of a summary of the National Conference on Career Education, New Orleans, January 15-17, 1973, are available on a first-come, first-serve basis from Harvey E. Wolfe, Program Planning Department, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011.

Career Education and Visually Handicapped Persons: Some Issues Surrounding the State of the Art

ABSTRACT: *The philosophy of career education is contrasted with the specific program approaches used in implementing it. Highlights of career education planning in Texas are presented, along with an overview of the national picture. The problems plaguing this field are discussed, as are the future possibilities.*

One feels somewhat ill at ease in attempting to speak about career education, particularly when it is applied to visually handicapped persons. There are at least a couple of reasons for feeling this way.

□ First, the term "career education" is so new that no complete, up-to-date source of information is available. I must say, parenthetically, however, the term is not *really* that new. I've been using it for some 25 years; but when "Washington" places a stamp on a term—any term—the possibility of dollar marks causes us to salivate like Pavlov's puppies. And we use the term in vogue in almost every other sentence. The fact is, though, we have built up no library of information on career education. This is evidenced by an advertisement in the January 1973 issue of the *Phi Delta Kappan* (p. 367) requesting *anyone* who has career education materials to please send them to the University of Kentucky, Lexington.

Second: I suppose, however, the fact that causes the most anxiety is that the concept of career education has not yet been universally defined. I think I know what I'm talking about when I speak of career education, and I'm sure others have been able to personally come to grips with the term; but if we think of it in different terms, the remarks in this paper might have varied meanings. So, for these remarks to be meaningful, a few general observations are in order.

The following is a brief review of the different current concepts of career education. As you review these concepts, you may find yourself identifying with one or more of them.

1. *The concept of a traditional, general education program.* The proponents of this concept maintain that the very purpose of education is the preparation for life, and that we ourselves are really the products of career-producing general education programs.

2. *The concept of vocational education.* Those who endorse this concept of career education acknowledge the need for basic educational training, but that beyond basic educational training, the real career training, or career education, is the acquisition of a salable skill.

3. *Occupational orientation or information.* In many school systems, various information courses are developed either as individual courses or as units

JOHN E. UXER, ED.D.

Dr. Uxer is executive director of the Education Service Center, El Paso, Texas.

Defining Career Education

General education

Vocational education

Occupational information

This article is based on a paper presented at the National Conference on Career Education, New Orleans, January 15-17, 1973, sponsored by the American Foundation for the Blind.

in specified courses, such as social studies. This concept is very similar to the first one outlined above, except that the need for specific kinds of occupational or job information beyond the traditional education program is acknowledged.

4. *Guidance and counseling.* Many of us would perhaps endorse the concept that adequate guidance and counseling programs result in effective career education efforts. The basic principle of guidance and counseling as an element of career education is that each individual will be able to accept responsibility for his own actions; that he will be responsible for acquiring information about life, including careers, and then apply it to his own life. Schools primarily endorsing this approach conduct extensive aptitude-testing programs. The results of these tests, then, are reviewed with students and parents and decisions concerning lifetime careers will emerge.

Guidance

5. *Career days.* Many schools conduct Career Day or business-information-education day programs and other activities which are designed to apprise students of the world of work. Visiting speakers are invited from a number of professions and occupations, and students are subjected to extensive exposure to information about many occupations. This is essentially a "one shot" per year effort to satisfy the career education demand.

Career days

6. *The umbrella-pyramid program.* An emerging concept now is the umbrella-pyramid program in which practically all school activities are placed under an umbrella in such a way that they relate to career education. In this system, a sequential set of goals, objectives, and behaviors which are intended to lead a student "through" school to a job are identified. It generally has a broad base in early elementary years and climaxes in later school years, resulting finally in the acquisition of a lifetime occupation. This, incidentally, is the approach that both Texas and the U.S. Office of Education lean toward at the present time.

Umbrella-pyramid programs

☐ While I am not in disagreement with any of these concepts, I submit that career education is *not* a program; it is *not* one of those mentioned, nor any other single program which may be in effect. Rather, career education is a philosophy, one that includes the belief that every person, regardless of his assets or deficits, has the right to "become timely aware of occupational opportunities and competencies necessary for each." I think it is a disservice to ourselves and to our clients to take the "head-in-sand" approach and not acknowledge that certain competencies are required for certain kinds of occupations. This is not to say that some occupations cannot be re-oriented to accommodate different sets of competencies; but it would be just as improper to lead a blind student to believe that he could become a rigger as it would be for me to be told that I could make the Miami Dolphin team.

Not a Program

A philosophy of career education must be flexible enough to be adaptable for any user, while at the same time it must be definite enough and focused enough to provide adequate direction for any program. In my opinion, a philosophy of career education should make it clear that any person, regardless of his assets or deficiencies, should be provided with: 1) information about all career opportunities; 2) an opportunity to assess his or her known assets in terms of those opportunities; 3) an opportunity to develop those assets to qualify, at a mini-

A flexible philosophy

mum, for entry into the desired occupation; and 4) an opportunity to develop alternatives to their deficits. In addition, although I think we all acknowledge that the earlier life training and career training can occur, the more effective it can be for an individual, this factor should not limit the exposure to career education activities because of age. This is particularly true if individuals experience handicaps which might change the kinds of activities in which they are able to participate.

I am convinced that career education programs and activities should not be concerned with such things as equal employment, employer attitudes and prejudices, employment policies, and a myriad of similar societal problems. It is readily acknowledged that these are important issues, and ones which must be faced, but to tie them to career education places an encumbrance which will dilute efforts in career education.

☐ To be sure, this philosophy, any philosophy, must be translated into action before it is worth a cent. And I hope this paper will help to outline some of the possible actions, particularly in the field of career education for visually handicapped persons.

This topic is, unquestionably, one of extreme importance and timeliness today. However, it is much too complex to consider in all of its ramifications in a short presentation. Recognizing this limitation, an attempt will be made to take a brief look at the present, hitting only a few highlights to provide perspective. The Texas situation will be explored, followed by a few observations regarding the national picture. Problem areas of general concern will be outlined as a background for an exploration of needs. Some recent developments will bring the present state of affairs up to date. The discussion will conclude with a consideration of projected future possibilities. These remarks are not intended to be exhaustive, but rather to provide the basis for further consideration of possible alternatives in the provision of improved career education opportunities to the blind and visually handicapped persons of the nation. While some of the remarks are critical, they are not intended to be negative. It is important to recognize some of the mistakes and shortcomings of the present if we are to effectively design improved strategies for the complex, rapidly changing future and to prepare blind and visually handicapped persons to compete and survive in the modern environment.

☐ Due to its size, geographical diversity, and population, Texas has developed many and varied services for blind and visually handicapped persons over the years. Education of public school-age visually handicapped children is primarily the responsibility of the Texas Education Agency and the public schools of the state. Between 500 and 600 legally blind students are educated annually in the regular public schools of Texas through both resource and itinerant programs. Between 200 and 300 legally blind students receive their education each year at the Texas School for the Blind in Austin. Services to visually handicapped students are provided through both day and residential programs.

The Texas School for the Blind provides numerous vocational training programs, as well as instruction in the traditional academic, physical education, fine arts, mobility, and efficient living skills areas. Vocational programs in-

Encumbrances

Translated Into Action

The Situation in Texas

School for the blind

clude distributive education, work-study, piano-tuning, woodworking, metal-working, small engine repair, business machines, vending stand management, and homemaking (including home repairs). Experimental programs have included such areas as electricity, electronics, simulated housing construction, small professional music groups, and assembly-line work for both regular and multiply handicapped students (Best & Winn, 1968). To provide a realistic work experience, these programs include gradual changes in the simulated attitudes of the employer role. Several personality types are exemplified in simulated work exercises in which real products are produced.

Special summer school projects have been conducted for the past several years at the Texas School for the Blind (Svaldi & Romig, 1969). Although the emphasis varies from year to year, two of the major components have always been a mobility-related core and an occupations exploration and awareness core. The bulk of the students attending the six- to ten-week summer programs have been totally blind high school and junior high school students from the public schools of the state. Films have been made of two of the summer projects and can be obtained from the Special Education Division, Texas Education Agency, Austin. One of these films describes the project with particular emphasis on its vocational and career training aspects; the intent is to provide a prototype of varied experiences which could be implemented in the public schools.

The Texas Commission for the Blind operates approximately 17 field offices and is an independent state agency charged with the responsibility of providing services to pre- and post-school-age blind persons. The Commission operates the Criss Cole Rehabilitation Center for the Blind in Austin and coordinates an extensive program of sophisticated vending operations across the entire state. Additionally, the Commission provides training services and rehabilitation services of many types through contracts with various agencies and by stimulating promising programs and projects with financial support. Numerous private agencies and sheltered workshops operate in the larger cities of Texas. The services of these agencies are many and varied, but for the most part the career experiences follow traditional patterns.

One of the major strengths of the services available in Texas is the high level of cooperation among the many agencies and programs for blind and visually handicapped persons in the state. Such cooperation is accomplished both informally and through interagency agreement.

□ Career education programs across the country vary from the marginal to the extremely sophisticated. The state and local organization patterns and funding sources are also extremely diverse. In some regions the available resources are entirely inadequate in size and scope to serve the needs of the clientele, while in other regions numerous agencies compete with each other to provide services to the same recipients. In general, the services have not kept pace with the times and traditional vocational trades are the major areas of emphasis. In my opinion, the very nature of many programs continues to breed client dependence rather than self-sufficiency. On the more positive side, several factors hold promise. Interagency communication has greatly improved and expanded in recent years through increased mobility, regional and national meet-

Summer school projects

Texas Commission for the Blind

The National Picture

ings, and the efforts of national agencies and organizations (Danwalder, 1964). The self-study implemented by many organizations interested in achieving accreditation by the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped has provided the introspective look so necessary as a prerequisite to constructive change and innovation. Greater exposure to other disciplines has infused agencies serving the blind and visually handicapped with new and appropriate information and technological potential. Although the pendulum is now swinging back, recent grants have assisted in the development of experimental projects and strategies which have made important contributions to the total endeavor. I really think the national picture is looking brighter, but several problem areas persist.

□ Even though there is more concern about and recognition of the need for career education today than in the past, the problems related to the implementation of adequate career education programs for blind and visually handicapped persons are sometimes unique. Although limitations of space do not permit an in-depth examination of these problem areas, it would seem useful to enumerate some of them; they present real barriers to progress and must be faced. Among these continuing problem areas are the following: 1) inadequate occupational and career information materials translated into media that can be read independently by blind persons; 2) lack of recognition of career education as an inherent part of the curriculum in the majority of educational programs for visually handicapped persons; 3) short-sighted attitudes among educators and rehabilitation counselors who only recognize immediate educational and programmatic goals, rather than the ultimate goal of social and economic independence for the individual; 4) stereotypical ideas about blind persons held by sighted persons based on their limited personal experience; 5) extreme employer reluctance to employ blind persons; 6) misdirected blanket, welfare-type assistance and concessions for the blind often administered in such a manner as to neutralize incentive; 7) dissipation of energies by agencies with real service potential through self-perpetuating, vested-interest activities (also true sometimes of organizations of the blind); 8) over-emphasis on specific vocational training often at the expense of the requisite mobility, daily living skills, and proper attitudes necessary to successful competition in the world of work; 9) the rapidly increasing numbers of multiply handicapped blind persons who will require special programs during the school years and after (Best, 1963); 10) continued failure to recognize the need for more than one approach to programs for various sectors of the blind and visually handicapped population (totally blind, visually handicapped, multiply handicapped, socially independent, personally dependent, etc.); 11) professional educators and workers who often tend to think in terms of diplomas, training-program completion, case closures, and statistics rather than continuing lifetime career education which keeps current with changing needs; and 12) the difficult-to-modify mind-set in many professionals, students, and clients developed under the influence of traditional vocational training approaches.

□ Needs and needs assessment, as considered here, are two distinct entities. First, a consideration of apparent needs in the area of career education may in-

Continuing Problem Areas

Employer reluctance

The multiply handicapped

Needs and Needs Assessment

clude the following items: 1) greater awareness in the minds of professionals and clientele of what career education is and what promise it is alleged to hold; 2) adequate career education guidelines for program implementation at all educational levels; 3) appropriate career education training programs for educators, rehabilitation counselors, etc.; 4) enlightenment of the potential employers, neighbors, and acquaintances of the realities of the individual differences of blind persons directed toward the goal of acceptance or rejection on the grounds of personal qualities rather than a class or group distinction biased by the physical handicap; and 5) an adequate, thorough, unbiased assessment of individual needs.

The term "needs assessment," as employed in this discussion, has to do with taking a careful look at, or an evaluation of, the personal goals, desires, needs, and ambitions of the blind and visually handicapped persons who actually will receive whatever career education programs emerge. Typically, decisions regarding program content and even selection of major program categories have been made by professionals and administrators with little, if any, true input from students and clients. Recently, certain more vocal (or visible) factions of the blind community have made themselves heard. This is certainly a step in the proper direction. However, a word of caution must be sounded. It may be that decision-makers are influenced unduly by a vocal minority. An adequate needs assessment will include inputs from a reasonably large, stratified sample of the various blind and visually handicapped population to gain a true perspective. Interviews, forums, questionnaires, etc., must be conducted in an open and non-threatening manner so as to accurately gain valid information. Once the needs are identified in this manner, they must be compared with existing resources to ascertain gaps that exist. Only by such a scientific approach can truly adequate and meaningful recommendations be made.

□ A number of current developments related to the topic under consideration might be examined further by those seeking information for the planning of their own programs. For example, in Texas, selected public schools are presently engaged in the third-year implementation of comprehensive special education programs for all handicapped children, programs that seem to be more directed at career education than most. On the horizon are more intensive, coordinated vocational-technical programs for the handicapped as an integral part of mainstream education. The Region XIX Education Service Center at El Paso has developed an innovative, comprehensive packet of occupational materials, called "Texas VIEW," in cooperation with the Special Education and Vocational Education Divisions, Texas Education Agency. It would be possible to transcribe these materials into braille and large type and record them on tape for use by blind and visually handicapped persons. A recent study by Scholl, Bauman, and Crissey (1969), called *A Study of the Vocational Success of Groups of the Visually Handicapped* and supported in part by a grant from the U.S. Department of Health, Education, and Welfare, sheds some light on the needs assessment aspect of career education. John Best, a doctoral student at New Mexico State University, Las Cruces, is designing a study to examine the educational program preferences of recent graduates of residential schools for

Input from students and clients

On the Horizon

Coordinated programs

New test instruments

the blind. Included in the proposed study are the development of an "independence index" and a "program components check list," instruments which may be helpful in the needs assessment process. Finally, under a \$250,000 federal grant, the Peoria (Illinois) Public Schools are developing and testing a new elementary school curriculum based on the concept of career education. This will possibly provide needed information to assist in the development of programs for visually handicapped children.

□ In the future, it seems obvious that continuing support for career education will emanate from federal and state levels for some time (Schucat, 1972). It is logical to assume that the increasing emphasis will be strongly felt by all of special education and vocational rehabilitation. The visually handicapped, by the very nature of their disability, stand to benefit greatly from this dynamic and promising concept. The question, then, is to what use we will put the opportunity that is so rapidly approaching. We must act quickly, decisively, and with accuracy if the potential benefits are to have maximum impact for the visually handicapped students and adults of our nation. Let us learn from our experiences of the past. Using the knowledge and predictive potential we have gained to maximum advantage, coupled with an accurate reflection of assessed need, it is within our capability to develop the most effective life preparation and adjustment programs for the visually handicapped ever conceptualized. Let us use this opportunity well that we may continually build upon it.

The Future

- Best, J. P. The need for the residential school. *New Outlook for the Blind*, 1963, 57, 127-130.
- Best, J. P. & Winn, R. J. A place to go in Texas. *International Journal for the Education of the Blind*, 1968, 18, 2-9.
- Career education program. *The Education Digest*, October 1972, p. 68.
- Danwalder, D. D. *Education, training, and employment for the blind*. Pittsburgh: Western Pennsylvania School for Blind Children, 1964.
- Scholl, G. T., Bauman, M. K., & Crissey, M. S. *A study of the vocational success of groups of the visually handicapped*. Ann Arbor, Michigan: University of Michigan, School of Education, 1969.
- Schucat, T. With education in Washington/For the Office of Education. *The Education Digest*, September 1972, pp. 64-65.
- Svaldi, V. E. & Romig, D. A. A busy and exciting summer for visually handicapped youth. *Education of the Visually Handicapped*, 1969, 1, 124-126.

References

Selected References From OSU

A list of selected references on career education is available from the Center for Vocational and Technical Education, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210. The list should be of use to educators planning, implementing, and operating career education programs.

The Implications of Career Education for Visually Handicapped Students

ABSTRACT: The author, who is with the U.S. Office of Education, summarizes the needs of handicapped persons for career education, the value of employment to the individual and to society, the role of federal funding, and possible approaches to career education. He also cites examples of program successes and a public school program in Santa Cruz County, California.

GEORGE E. KLINKHAMER

*Mr. Klinkhamer is state plan officer,
Bureau of Education for the Handicapped,
U.S. Office of Education, Washington, D.C.*

Under the provisions of Title VI-B of the Education of the Handicapped Act, the Allegheny County Schools in Pennsylvania were awarded a grant to conduct a demonstration project on developing independence in preschool visually handicapped children. I should like to quote from the report on this project: "The inability of severely visually impaired children to move freely in space deprives them of many learning experiences available to sighted children in early years. Multi-handicapped visually impaired children face this program exaggerated by the limitations imposed upon them by the presence of emotional, physical, and mental impairment. Without some basic training and activities directed to the development of free body movement, communication, and social competence, these children are seriously deprived of extremely important early life experiences which are fundamental to developing a healthy body image, a sense of personal security, and a necessary perceptual motor background for adapting to the world around them."

□ After reading this part of the introduction and further delving into the content of the project, I wondered about the implications of such activity for total career education. Without the ability to move independently, without eating skills, without independent dressing skills, without socialization skills, without body image awareness, and without developing a capability to develop effective use of residual vision, we cannot expect our visually handicapped children to move toward concepts related to career education.

Career Education and the Handicapped

Early in life, education and training must prepare handicapped children for the world of useful work as well as preparing them for the world of useful living outside of work. The education and training resources in the United States are vast, mighty, and innovative, yet they have not fully been brought to bear in the lives of handicapped persons.

Realism must be the key to education and training of the handicapped since they are going to have to enter a world not truly made for them; get a real job that may be alien to their concepts of work; face up to real social and interpersonal situations that may not always be pleasant; handle real personal problems (money, transportation, living quarters, etc.), that for us might be routine, but for them are crisis-sized.

Realism

This article is based on a paper presented at the National Conference on Career Education, New Orleans, January 15-17, 1973, sponsored by the American Foundation for the Blind.

In our society, employment has many values in addition to the obvious one of earning a living. Employment builds self-respect, a heightened self-image. Employment fosters a feeling of usefulness, without which life seems futile. Employment leads to personal growth, both social and intellectual. For the handicapped, employment is a burst of sunlight, particularly for those who had never worked before and those who had never dared hope of work.

□ U.S. Commissioner of Education Sidney P. Marland was the real driving force behind career education, since he stressed this concept in the development of federal priorities. Federal funding has also been an important factor in the design and development of career education programs; and many state and local education agencies have put forth that additional effort toward implementing a total system of career education.

While the development of career education for handicapped children may be somewhat less rapid than it has been for the general school population, strides have been made in some states to develop and implement such programs. In some instances handicapped students have been included as a component of the over-all plan for providing career education.

Career education has generally been conceptualized to mean the preparation for gainful or at least successful working careers. It includes not only specific skill training, or what is often referred to as "hands on" experiences, but also an emphasis on the importance of work attitudes, human relations skills, orientation to the world of work, alternate career choices, and actual job placement. Classrooms, the home, community, and the whole host of employers will be a part of the total learning environment.

Training should begin at a very early age and continue through the school years, even allowing for flexibility so that youths may leave school and return for further training or re-training. Career education invigorates academic subjects by stressing their practical aspects. It should not be conceived as a time segment of education, such as elementary, secondary, or post-secondary, or as a separate subject matter in vocational or academic education. It encompasses all of these and more. It is a basic part of all education and gives the school a key role in identifying and coordinating all learning environments which can further the career goals.

□ How is career education the same or different for the exceptional child as opposed to regular children? It is clearly evident that teachers of handicapped children need to develop a greater degree of interest in and awareness of careers. Individual differences must be more readily recognized and plans made for extensive individualized instruction. In some instances, it may be necessary to create new instructional procedures, materials, and facilities. Many handicapped children may need additional time in the career exploration stage and often need more time on the skill training stage. Additional guidance can be extremely helpful. Realistic career goals for them are a must. Handicapped students must be aided in establishing goals on the basis of their intellectual and physical capabilities, the training available, and the job market. Parents must also have realistic career goals for their children and become an integral part of the total training process. Job redefinitions may be

The value of employment

Role of Federal Funding

Many areas of training

Begin early—and continue

For the Exceptional Child

Job redefinition

necessary at times to accommodate the handicapped. It is here suggested that the basic components of career education for all students are similar, except that for handicapped students it is more often necessary to make adjustments or modifications of the content and methodologies to meet the individual's specific needs. Visually handicapped students should be participating in vocational education programs to meet their special needs as well as in career education programs, of which vocational education is one component.

□ The needs of students should be clearly identified, and then discussions with special education, vocational education, and vocational rehabilitation personnel should take place. Mutual planning is necessary to meet the career education needs of this population; no one group can do the job alone. It is impossible from both a financial as well as a manpower standpoint to develop parallel programs with adequate offerings to meet the needs of visually handicapped students. The design for providing services needs to be clearly delineated and the components of such training which can be provided by each agency should be so designated. There is nothing wrong, for example, with blind children enrolled in a school for the blind, attending a regular vocational-technical school for certain course offerings; and just the reverse, some regular students may attend the school for the blind for a specific training program not offered in their own school facility.

It would be impossible to relate here all of the various programs designed to provide vocational education or career education for visually handicapped students; however, I believe it pertinent to cite a few examples. A blind young man in Glen Burnie, Maryland, is working as an automatic transmission service mechanic, having received training at an auto mechanics school in Kansas City. There is a legally blind young woman working as a telephone operator with the New England Telephone and Telegraph Company. Blind keypunch operators are being used successfully to transcribe the orders of salesmen in grocery and shoe store chains. There are, of course, dozens of other jobs in which blind young persons have been successfully placed.

One of the public school programs receiving funding for vocational education is the program for exceptional children in the Santa Cruz County, California, Office of Education, under the direction of Richard D. Struck. The purpose is to provide a regional vocational skills training and counseling program for blind and partially sighted students. The program objectives are to provide: 1) 100 percent of all eligible blind and visually handicapped students enrolled in public and private schools in the five counties (San Mateo, Santa Clara, San Benito, Monterey, and Santa Cruz) with an opportunity to participate in on-going vocational education programs; 2) in-service education training for vocational education teachers in order for them to gain an insight into the needs as well as capabilities of the visually handicapped; 3) specialized equipment and tools needed by the students as they move from the simple to the more complex areas of training; 4) vocational counseling, program planning, work experiences, and supervision for students; and

Identifying Needs and Approaches

Examples of program successes

Santa Cruz County program

(Continued on page 215.)

Career Opportunities for Visually Handicapped Persons in Maryland

ABSTRACT: In 1972, the Maryland School for the Blind conducted a survey of employers in the state to determine how many blind persons were employed (and in what kinds of jobs) and employer attitudes toward hiring the handicapped. Former students of the school were surveyed to determine their feelings about the vocational education they received at the school and their suggestions for changes and improvements. Using this data, a pilot vocational education program was planned. Later phases of the project will include establishing the pilot program in the school and, based on that experience, setting up a comprehensive vocational education center there.

Over the years, expansion in vocational and technical education has increased on a very limited scale in schools for blind children, as compared with quite extensive development in the public schools. The range and quality of educational opportunities in vocational education programs for the blind have not kept pace in either curricula or physical facilities. It is reasonable to assume that this lack is due to the reliance of the schools upon the post-graduation experiences which students will have under the auspices of public agencies charged with this responsibility. The opportunity of receiving post-graduation training or schooling, however, seems to be available only to a select few. Generally, those blind students with a higher capacity for learning (20 to 40 percent) are the ones who receive, and rightfully so, the bulk of advanced education and training. However, this is serving the needs of the minority group, and it is time that educators of the blind also begin to serve the needs of the less able majority through realistic vocational education programs that will provide them with opportunities for training and employment in suitable and satisfying occupations, in place of a traditional "pre-occupational" program.

□ A 1969 study by the Maryland Department of Employment Security provided considerable information about future manpower requirements for the state by using the projection technique and the national occupational and industrial projections developed by the Bureau of Labor Statistics. Although the Maryland Department of Employment Security expanded the information provided by the national projection method, the Maryland School for the Blind found that these projections did not provide the kind of concrete evidence that could serve as a total basis for making vocational education program projections appropriate for blind and visually handicapped persons.

The present report is for Phase I only of the Maryland School for the Blind

This article is based on the Phase I Final Report entitled "A Vocational Program for Blind Children and Youth," submitted to the Maryland State Department of Education, Division of Vocational-Technical Education. Copies of the full report are available from the Maryland School for the Blind, 3501 Taylor Avenue, Baltimore, Maryland 21236.

ISAAC P. CLAYTON

Mr. Clayton is project director, Maryland School for the Blind, Baltimore.

The majority not served

The Need for Better Data

project, but a brief description of the succeeding Phases II and III is included at the end of this article.

□ In 1972, under a grant from the Maryland State Department of Education, Division of Vocational-Technical Education, the Maryland School for the Blind, using the national projection method, conducted a survey to: 1) determine career opportunities for the blind and visually handicapped in Maryland; 2) determine the employment history and present job placement of visually handicapped adults who attended the Maryland School for the Blind from 1961 through 1971; and 3) develop a pilot vocational education program in accordance with these findings.

The underlying philosophy pervading the development of the Vocational Education Program for Blind Children and Youth Survey Project was that there be maximum involvement of interested and informed employers throughout Maryland. Thus, the guidelines for the survey called for extended participation at the "policy-making" level in order that: 1) there would be greater understanding of the employer benefits in contributing to the development of a new source of manpower; 2) the occupational needs of visually handicapped persons would be carefully considered; and 3) proper feedback would be afforded in providing career information regarding the hiring of visually handicapped persons in Maryland.

To obtain the deep involvement and interest of the employers in the state, two 30-second radio announcements regarding the project were taped by Maryland State Comptroller Louis L. Goldstein. These announcements were played over 65 AM and FM radio stations in Maryland. Press releases were developed and have appeared in 90 newspapers throughout the state.

Fact-finding activities and meetings were conducted to explore the process of obtaining maximum employer cooperation in filling out and returning the questionnaire. In retrospect, the employers' contributions have proven invaluable, since an impressive number of responses were indeed received.

The Advisory Committee, consisting of executives in industry as well as representatives of various groups concerned, was asked to assist with the highly specialized task of evaluating training and employee job-placement procedures. The project staff spent much of the first month reviewing available literature pertinent to this project. Other concerns revolved around the over-all educational activities of students at the Maryland School for the Blind.

To avoid the possible "bottle-neck" that sometimes exists in organizational structures of industry and other business agencies, the transmittal letter, together with the questionnaire and a business reply envelope, were sent directly to the attention of the president, vice-president, or other administrative officer, so that the directive with regard to involvement in this project could come from the top echelon. This was accomplished by ascertaining names and addresses from literature secured from the Baltimore Chamber of Commerce, Maryland Department of Economic Development, Maryland State Department of Health and Mental Hygiene, and metropolitan and local newspapers.

□ A simple and direct approach to the question of what understandings, knowledge, and skills have immediate relevance to the hiring of visually

Purpose of Survey

Method of operation

Publicity

Advisory committee

Contacting the top echelon

Analysis of Employer Responses

handicapped persons would be to ask those persons who have the responsibility for such hiring. This was the approach used in the study of 1,981 employers throughout the state. As mentioned, the questionnaires were mailed directly to the top administrative echelon. The following data will indicate the effectiveness of this particular mailing procedure. A total of 460 employer responses were analyzed. Responses were made by employers in the types of businesses listed in Table 1.

More than 50 percent of the persons completing the questionnaire possessed the administrative authority to determine a negative or positive position regarding involvement in this study. Of equal significance is that over 84 percent of the completed questionnaires were returned within ten days after our mailing date. It is reasonable to assume that this prompt and high rate of response can be attributed to: 1) the administrative authority of the person receiving the questionnaire; 2) the ease with which the questionnaire could be completed; 3) the noncommittal and confidential nature of the questionnaire; and 4) the concise wording and one-page length. Twenty-three percent of the employers surveyed completed and returned the questionnaire; 20 percent requested a copy of the final report.

□ Many of the employers (118) did not complete the questionnaire but, rather, provided comments expressing their reason for not wanting to employ blind or visually handicapped workers. The reasons and their frequency (in parentheses) are as follows: family-owned business (3), no position available (2), small business (9), out of business or moving (7), work too dangerous (25), partial vision needed (10), have tried it—did not work (2), seasonal work (5), not hiring at this time (12), do not use job areas specified on the questionnaire (8), must have union approval (2), budget does not allow (2), work is too technical (14), no repetitive-type operations (1), must pass physical and sign waiver (2), too much additional strain on supervisory personnel (1), political appointees only (1), must consult insurance company (1), ten percent limit of handicapped now employed (1), possible jobs for the handicapped handled by present employees who are ill or injured (1), plant not equipped for visually handicapped workers (5), and employee must operate a motor vehicle (4).

A major part of the follow-up procedure was to arrange a personal interview with the responding employers, and more than 27 percent were interviewed. While it was felt necessary to send an interviewer from the Maryland School for the Blind to ascertain additional information and establish personal contact with the participating employers, we were not able to respond to all of them due to lack of staff and time. Sixty-five percent of the employers responding consented to an interview (as indicated on the questionnaire), while 35 did not. However, after a follow-up telephone call, 15 percent who had said "no," agreed to an interview with the school representative.

□ Employers were also asked to indicate on the questionnaire whether blind or visually handicapped workers were currently employed at their place of business and, if so, to give the employee's job classification. The following jobs were indicated: five medical transcribers; three clerks; two each: laborer, maintenance mechanic, systems analyst, incoming materials handler, production

TABLE 1
Number of Responses
From Employers

<i>Type of Business</i>	
Manufacturing	226
Sales and Distribution	24
Communications (Radio, Television, Telephone)	11
Medical (Hospital, Medical Center, Rest Home)	53
Service (Hotels, Motels, Restaurants)	15
Food Products	67
Education, Religion, Social Services	35
Sheltered	18
Government (Federal, State, Local)	6
Clerical	23
Total	478

Employer Comments

Follow-up interviews

Jobs Held by Blind Persons

worker, teacher, secretary; and one each: dispatcher, sales associate, cooker (poultry), machine tender, maintenance foreman, safety stores clerk, truck yard, systems engineer, vice-president, carton room helper, machine operator, conveyor attendant, paint production worker, supervisor, lab technician, heat treater, DMT brailist, custodian, service representative, administrative assistant, typist, assistant professor, speech teacher, trouble and service man, employee representative, housekeeper, engineer, masseur, dark room technician, parking lot attendant, registered nurse (OP Department), social worker, maid, guard, and warehouse man. This represents a total of 57 persons in 44 job classifications.

□ As part of the study, 343 students attending the Maryland School for the Blind from 1961 through 1971 were sent questionnaires to ascertain pertinent information regarding the nature of their current employment, employment success, and specific reaction to the goals of this project. It was hoped from the outset that the former student samplings would extend over a 20-year period. This, however, was not possible due to the lack of up-to-date addresses. Of the former students sent questionnaires, 44 percent completed and returned them within 45 days of the mailing date. As a part of our follow-up procedures, 20 percent of the responding former students have been contacted by phone or in person to acquire further information and suggestions regarding the development of a more diversified vocational education program at the Maryland School for the Blind.

Roughly one-third of the former students responding were gainfully employed, one-third were unemployed, and one-third were full-time students. In essence, all of the interviewees recommended and encouraged the inclusion of the following areas of student and program development: 1) that students be exposed to the world of work earlier through off-campus and on-campus work experiences; 2) that greater emphasis be placed on social development through activities with other sighted children; 3) that more vocational opportunities be provided for broader student selectivity; 4) that off-campus activities involve students other than those participating in sports, singing groups, bands, etc.; 5) that students be provided greater opportunities in making decisions regarding their conduct and future; 6) that greater involvement of parents regarding the students' future be developed; and 7) that students be provided more information about available job opportunities. It is significant to note that these recommendations are certainly in accord with the end to which the Maryland School for the Blind is directing its resources and efforts.

□ The next step in this project was to develop a pilot program, to be called "Vocational Education for Blind Children and Youth." It consists of the following components: 1) work adjustment and interpersonal relationship development; 2) the value of social attributes to job success; 3) job opportunities for blind and visually handicapped persons; and 4) reducing technical skill and training to classroom components. In addition, the program is focused on the merits of the curriculum and on creating the conditions which make possible the difficult task of harmoniously integrating the educational experiences required in nurturing the socio-economic and mental development of our stu-

Survey of Former Students

Recommendations of students

Pilot Program

dents. In accomplishing this end, our students can become independent citizens rather than dependents of society.

A job can be conceptually described as a composite of units or tasks of varying skill requirements that are sequenced to produce some output. Task analysis procedures will be used to identify the component activities in jobs of homogeneous skill levels in constructing further job descriptions. In communities where an insufficient number of job opportunities are available for the visually handicapped population, a similar procedure will be used to analyze job groups (even when these may exhibit heterogeneous skill requirements) and subsequently to undertake their redesign. Job redesign may also be possible where several seemingly appropriate jobs are available, but no match between a visually handicapped person and a job can be made.

□ Job redesign techniques directed specifically to the effective use of manpower have been developed both in industry and in government organizations. Two extensive descriptions of job redesign are presented in pamphlets prepared by the Department of the Army (1954) and by the Society of Personnel Administration (Hieronymus, 1958). These studies, as well as others by the American Institute for Research (Preston, 1956; Peterson & Jones, 1959), have shown that job inequities exist, often with highly skilled persons being required to spend a disproportionate amount of their time on activities requiring much less skill and experience.

Job redesign will not, in every instance, have to occur, because many of the jobs indicated by employers are already being performed successfully by visually handicapped persons. Further, job redesign does not, of course, necessarily result in the creation of additional positions. But redesign can result in greater productivity, since it releases more skilled persons to perform jobs with higher skill requirements.

□ Obviously, such a program will need to be periodically re-assessed and re-evaluated in order to keep pace with changing labor market trends, training procedures, and student needs and interests. During appropriate intervals, therefore, it will be the responsibility of the Maryland School for the Blind to focus on the planning activities of the vocational education program. A formalized structure will be established which will not only thoroughly identify the program requirements of the vocational education program, but will consider the interrelationships of other course offerings with the prevocational and vocational experiences of the students of the Maryland School for the Blind.

In addition, long-range planning includes the following second and third phases of activities: Phase II, the establishment of the pilot vocational education program at the Maryland School for the Blind to demonstrate the use of the curriculum developed in Phase I; and the evaluation of the effectiveness of the curriculum and pilot program by examining the work histories of those who will have completed their training in it; and Phase III, the development of a comprehensive vocational education center at the Maryland School for the Blind, based upon the results of Phase II, which can serve as a model for other vocational education programs serving blind children and youth. In conclusion, the long-range planning activities will continue to seek the advice and consul-

Job opportunities

Job Redesign

Periodic Program Review

Long-range planning

tation of the Maryland State Department of Education, Division of Vocational-Technical Education; the Department of Vocational Rehabilitation; the Maryland Workshop for the Blind; and the current Advisory Committee.

Department of the Army. *Job engineering: Modification of jobs for better utilization of manpower*. Civilian Personnel Pamphlet, no. 39. Washington, D.C.: U.S. Government Printing Office, 1954.

Hieronymus, G. H. *Job design: Meeting the manpower challenge*. Pamphlet, no. 15. Washington, D.C.: Society for Personnel Administration, 1958.

Peterson, R. O. & Jones, E. M. *Development of a system of job activity elements for the mentally retarded*. AIR-B76-59-FR-203. Pittsburgh: American Institute for Research, 1959.

Preston, H. O. *Improving operations through job redesign*. AIR Memorandum, no. 1. Pittsburgh: American Institute for Research, 1956.

References

The Implications of Career Education . . .—Continued from page 209.

5) job placement services for those terminating their educational program.
☐ In summary, I should like to reiterate the need for mutual planning by all concerned agencies toward meeting the career education needs of visually handicapped students. Teachers need to be aware of the career education sequence and make provisions for each child to progress at a rate commensurate with his capabilities and interest. Every handicapped child who leaves school should have had career educational training that is relevant to the job market, meaningful to his career aspirations, and realistic to his fullest potential. Teachers should be highly creative, intelligent, skillful people constantly seeking new and better ways to help children learn. They should be striving to maximize the individual's strengths and potential. Functional programs should be developed and implemented, using whatever strategies are necessary to carry it out, while keeping the programs flexible; effectively utilizing new laboratories, media, and instructional materials; and developing and maintaining a close liaison with parents (home), the community, and industry. All who are involved should be aware of the cost benefits to society from having all of our handicapped gainfully employed, since employment is in lieu of being on welfare, being institutionalized, or being kept by parents or relatives, all of which are costly. Handicapped persons can be contributing taxpayers in our society, be active in civic affairs, be home owners, participate in all community activities, and lead happy, useful lives.

Summary

Work-Experience Programs in Connecticut, Pennsylvania, and California

The following three articles have been selected for inclusion in this special issue of the *New Outlook for the Blind* to illustrate three different approaches to providing work experience for blind, visually handicapped, and multiply handicapped youths.

A Diversified Cooperative Work-Experience Program for Blind and Multiply Handicapped Blind Students

ABSTRACT: This federally-funded program provides both individualized classroom preparation for the world of work and carefully selected placements in part-time jobs on and off campus. The curriculum includes academic subjects, work skills development, training in specialty areas, and on-the-job services during the work-experience phase. Both training and placement activities are carried out in cooperation with community-based and state-operated programs.

The Oak Hill School, conducted by the Connecticut Institute for the Blind, has for some time directed its efforts toward training, educating, and providing ancillary services for blind and multiply handicapped blind students enrolled in academic, basic studies, and special classes. Although some attention has been given to providing students with classroom instruction and practice in skills which would later prove valuable when seeking employment, it was determined that there is a critical need to initiate a well-designed, on-going, full-time work-experience program which would coordinate specialized classroom courses with campus and off-campus work experiences of a practical nature.

Investigation of possible funding sources on the federal level for the proposed Work-Experience Program resulted in our applying for and receiving funds under the Vocational Education Act Amendments of 1968 and an expansion grant from the U.S. Social and Rehabilitation Service. A three-month planning grant received early in 1970 enabled us to determine the feasibility of such a program. We then designed a program during the summer which would combine the necessary fundamental procedures, curricula, and format—

JUDITH T. TREMBLE
LAWRENCE F. CAMPBELL

Ms. Tremble is coordinator of the Work-Experience Program, Oak Hill School, Connecticut Institute for the Blind, Hartford; Mr. Campbell is assistant superintendent of the school.

Funding

with built-in flexibility for adaptation to insure that each student would achieve the measure of success commensurate with his total abilities.

Selecting participants for the program involved the assembling of all pertinent data available on each student: the number and type of handicapping conditions, social competence, current intellectual functioning (H-B, WISC, WAIS, HISab), previous academic achievement, and future goals. Additional relevant information was compiled by consulting with school personnel (principal, social worker, teachers, psychiatrist, counselor, etc.) and especially with the prospective participant and his family.

□ The program, which is designed to be flexible and to meet the needs and goals of the individual student, consists of three major components, the first of which is the core area. Basic courses which all students must complete include English, mathematics, United States history, physical education, one year of science, and a course on vocations. This last course has as its purpose expanding occupational knowledge and exposing the student to various broad job families through classroom instruction, guest speakers, and field trips. Both the English and mathematics curricula were designed with particular emphasis on the skills needed in the business world, such as those related to communication, spelling, following directions, use of the abacus and calculator, handling daily finances, and problem solving. Along with the above listed courses, all work-experience students take part in the following programs according to their needs: orientation and mobility, with emphasis on travel to and from work and within the work setting and on public education of the student's co-workers (sighted guide technique, etc.); typing, both personal and pre-vocational; and home and personal management, cooking and sewing, selection and care of clothing, and generally anything relevant to helping the student function as independently as possible. The student may also elect to study the following subjects: foreign language, music, arts and crafts, sociology, biology, contemporary issues, etc.

The second component encompasses the specialty areas through which the student explores career interests, aptitudes, and abilities. The intent of the specialty area is not to make the student an expert at specific job tasks, but rather to provide an opportunity to receive training in a major work field and to improve work skills that are found in many jobs. This is accomplished by offering each student an overview of the specialty areas during his first year within the program. Through this involvement, the student is able to make more realistic decisions about his choice of concentration for the rest of the program.

The specialty areas are industrial education, business education, piano tuning, and home and personal management. Each area offers the student a program of progressive training opportunities and allows entrance into that area at the student's present level of competence. The specialty areas are scheduled as follows: five to seven 40-minute periods per week during Phases I and II, and eight to ten 40-minute periods per week during Phases III and IV. The exception to this is piano tuning, for which students are scheduled for five to seven 40-minute periods per week during the introductory period and Phase I, and ten 40-minute periods per week during Phases II, III, and IV. Course

Participants

Program Design

Curricula

Developing work skills

Specialty areas

work is highly individualized and allows each student to progress at his own rate. One student may practice certain skills which need to be reinforced, while another in the same class may be learning an advanced technique.

The third major aspect of the program involves the following on-going ancillary services: therapy (physical, occupational, speech, and music); medical (general, neurological, psychiatric, orthopedic, ophthalmological, audiological, and dental); and psycho-social (therapeutic, vocational, and family counseling). As many of the students are multiply handicapped, these services are an important and integral part of the program.

□ During the course of his program, each student is offered a work experience either on campus or off-campus in a rehabilitation setting or in a community placement. The nature of this work experience is contingent upon his level of competence in all areas, including specialty areas as well as orientation and mobility and daily living skills.

Enlisting the cooperation of and maintaining contact with local insurance companies, department stores, hospitals, industrial plants, etc., is an on-going process. Since there are numerous possibilities in the greater Hartford area, extensive exploration of these potential placement sites is necessary to insure the best possible work arrangement for the student, who very often is applying for his first job experience.

The student-to-job matching process is very selective and attempts to have the first work experience be a successful one for the student and also for the co-operating business. The demands of the job and the skills necessary to execute it are carefully evaluated by the work-experience team (rehabilitation counselor, area specialist, and orientation and mobility instructor). The student is consulted and given an explanation of the job; if he elects to accept the position he is then responsible for calling the personnel director, setting up his own interview, and setting working hours within pre-arranged school-release time.

Prior to or on one of the first days of work, a team member may accompany the student to the job to provide on-the-job instruction, further mobility, or to answer questions and assist generally with problems which arise. Continuous contact with the job supervisor and the student provides feedback to the Oak Hill staff who in turn help to solve any problems and to alleviate any anxieties. This contact is maintained until the student feels secure in his new environment and his supervisor is satisfied with his performance.

□ The work experience has led to full-time employment for some students upon completion of their program at Oak Hill, in such areas as machine operation, piano tuning, and kitchen work. The work experience also helps the student to define career goals and provides a foundation from which he can advance his vocational plans through further training beyond high school.

We coordinate our services with community-based training programs and, as an extension of the specialty areas, students become involved in programs of interest not offered at Oak Hill. At the present time, these include nurse's assistant, child care aide, and classroom aide training programs.

When a student completes his program at Oak Hill and is ready for employment, every effort is made to assist in placement. Oak Hill School maintains a

Ancillary services

Student Internships

Employer contacts

Matching student with job

On-the-job services

Successes

Coordination with other programs

Placement assistance

close working relationship with the State Board of Education and Services for the Blind (BESB). At 16 years of age or in the junior year of high school, the student is referred to the BESB Rehabilitation Division and a state rehabilitation counselor initiates contact with the student and his family. As the student nears the completion of his program, the state counselor and Oak Hill staff work closely with the student to find satisfactory community placement. Students are encouraged to take an active role in their placement, but the services of the Board of Education and Services for the Blind, as well as the Oak Hill School, are always available when assistance is needed.

□ In summary, the Work-Experience Program at Oak Hill consists of a planned progression of training opportunities to prepare students in various broad occupational areas, culminating in a specific work experience related to the students' specialty choice. The program is designed to offer students a sound background in both occupational and basic educational skills, and to help them to become independent and contributing members of the community.

Summary

Learn to Earn: A School Work-Experience Program

ABSTRACT: Students at a residential school for the blind are provided part-time work experience in the sheltered workshop operated by an agency for the blind. The guidelines by which the program is operated are included, as are the present plans for modifying and improving it.

In the area of visual disability, perhaps the most pressing problem encountered is the societal attitudes toward the visually handicapped person. This is especially evident in the area of employment. Although it has been demonstrated that handicapped workers can be as productive as non-handicapped workers, many employers are reluctant to provide an opportunity for on-the-job training and experience. The opportunities for visually and multiply handicapped youth are even more remote, as evidenced by their inability to obtain summer employment. Yet the need remains for some type of work experience which will realistically demonstrate conditions in employment, while providing the enrollee with some financial remuneration.

In an effort to ameliorate some of these conditions, the Pittsburgh Branch, Pennsylvania Association for the Blind (PAB) and the Western Pennsylvania School for Blind Children (WPSBC) are cooperating in providing work experiences for eligible students attending the school.

□ In January 1971, a pilot project was begun to determine the feasibility

DENNIS J. HUBER, A.C.S.W.

*Mr. Huber is program director,
Pittsburgh Branch, Pennsylvania
Association for the Blind.*

Pilot Project

of such a program. The following guidelines, based on the project proposal, were used for the operation of the original program:

The WPSBC will establish a list of potential candidates for this program from their current enrollment. Candidates must be at least 16 years of age, possess a work certificate (if under 18 years) and a social security number and, through the school's evaluation, qualify for one of the following categories: 1) students who will, in all probability, be candidates for sheltered employment after graduation; or 2) students who will be capable of entering the labor market upon graduation. Candidates for the program must be registered with the WPSBC and with the PAB program coordinator.

The WPSBC will be responsible for orienting enrollees to the exterior environment; the PAB will provide the necessary interior orientation to enrollees, using appropriate orientation techniques.

☐ Contingent upon available contracts, part-time employment will be available from 1:30 P.M. until 4:30 P.M. on Tuesday, Wednesday, and Thursday. Students currently enrolled in the program will be notified on Friday of the work schedule for the following week and should re-affirm the schedule with the program coordinator before reporting to work.

Each eligible candidate will be enrolled in the program for a period of six weeks. At the termination of this period his progress will be reviewed and a written evaluation of performance, areas of strengths and weaknesses, prognosis of potential, and recommendations will be submitted. This evaluation will involve all staff who deal directly with the enrollee: program coordinator, shop supervisor, and any involved casework staff. Enrollees will receive intensive training and work experience in appropriate phases of workshop activities.

It is generally accepted that any degree of proficiency in work activity as offered by the PAB requires constant, long-term experience. Since enrollees of this program will participate on a part-time basis for a limited period, and since this period includes non-productive orientation and training time, the PAB will provide a stipend of 50 cents per hour to each enrollee for the nine-hour per week, six-week period. This amount of 50 cents per hour will be amended if ancillary funding from state, federal, or private sources can be obtained.

These original guidelines were flexible enough to allow for the minor changes that occur in any new program. Two students were enrolled in each six-week period, and each student was encouraged to offer suggestions for improvements in the program.

☐ The response has been enthusiastic enough to warrant continuation. Some basic changes being considered include actual application by students for employment along with an interview of prospective participants; expansion to two full days employment per week for a full semester to offer a more realistic work setting; the incorporation of the work into the school curriculum with appropriate credits toward graduation; on-the-job supervision by a qualified vocational teacher with training and experience in dealing with problems in adjustment; and expansion to include more students.

Guidelines

Orientation

Hours

Evaluation

Stipend

Program Continues

Both the WPSBC and the PAB evaluated the program and found it to be of value. The response of the students who have participated also indicates that such a program is both desirable and necessary.

The Self-Reliance Institute: Filling the Gap in Work Experience

ABSTRACT: This five-week residential program is very intensive and seeks to establish a "boot camp" environment in which great demands are made upon students, forcing them to achieve through a heightening of their self-awareness and self-esteem. Instruction includes seminars on job-hunting and interview techniques (followed by competition for available jobs); classes in daily living skills, mobility, sensory development, and physical education; and rap sessions on attitudes, feelings, and anxieties. Employer evaluations, academic and skills tests, and standard psychological tests indicated that the program had attained its goals. Parent involvement, though encouraged, remained at a low level.

Despite their college degrees, blind graduates often cannot find jobs. "When the work experience sheet is blank, you might just as well forget about an interview," as one counselor has expressed it. While this maxim may also apply to sighted persons, school and state counselors agree that it is especially true for blind and visually handicapped persons.

When the blind student does land an interview, he often makes a bad impression because of inappropriate social habits, poor physical appearance, mobility problems, or lack of a competitive and aggressive attitude toward work. The result may be a highly trained individual with no place to go.

Until recently, no one quite knew what to do about the problem. Summer skills and mobility programs traditionally gave a blind youth more physical independence, but ignored the central problem of his work experience, habits, and attitudes.

□ Then the Sacramento Society for the Blind tried a different approach with an experimental Self-Reliance Institute. Planned and developed by the Society's executive director, Thomas C. Ryan, and by A. Michael O'Brien, program coordinator, the Institute was launched in the summer of 1970 and is now going into its fourth year.

This intensive five-week residential program operates on the three-pronged theory that: 1) the blind adolescent, like his sighted counterpart, behaves according to the expectations of the people around him; 2) he is essentially an under-achiever with a poor self-image; and 3) he has the latent capacity to become a productive worker. The Institute opened with a week-long "crash"

MARILYN LAURENCE

Ms. Laurence is a staff writer for the Sacramento Society for the Blind.

Unemployability

Self-Reliance Institute

Three-pronged theory

training program in job interview techniques, social skills, and grooming. Students then competed for four weeks of salaried work experience in the community. They were evaluated by their employers, as well as Institute staff, as they progressed through the concurrent work-study program. The results in job performance and increased self-esteem surprised employers, staff, and students alike.

□ Financing became an immediate stumbling block once the Society, a private agency, decided on a work-experience program. Students would have to live together away from home to intensify the program's impact. Their activities needed broadening to boost their self-esteem and give them more in common with their sighted peers. As a result, teachers of such activities as fencing, archery, and trampoline were as necessary as instructors in mobility, skills, and cosmetology. As it turned out, employers would also have to be reimbursed for the students' salaries.

The initial plan called for 28 students and a budget of \$20,000. No one agency could afford the expenditure, especially for an experimental program. Special grants were unavailable. But in a heartening community effort, ten other organizations joined with the Society to pool funds, time, equipment, services, and consultation for an otherwise impossible program.

The organizations included three school districts, three service clubs, a state college, and three other agencies. The school districts used special program funds from the state to hire some instructors. Other instructors and bus transportation were financed through the schools' Average Daily Attendance funds. State college dormitory fees of \$200 each came from the students' county blind aid checks. Since employers were unwilling to take the risk themselves, the State Department of Rehabilitation reimbursed the employers for the salaries of \$1.50 per hour (now \$1.65). In all but a few cases, students received checks written by the employers, thus earning Social Security points and establishing a permanent work record.

□ After recruitment, 13 employers agreed to participate in the program. Eight represented governmental bodies; the other five employers had previously worked with the Society or were handicapped themselves. Job categories included recreational aide, receptionist, cafeteria worker, typist, transcriber, and industrial maintenance worker.

Students ranging in age from 15 through 20 years were recruited through their school or state rehabilitation counselors. All but one came from public schools equipped with resource rooms. Since there is usually one resource elementary and secondary school per district, most students had always been bussed to school. The time factor, combined with physical awkwardness and a sense of dependency on the resource room, had drastically reduced their participation in extra-curricular activities. Students had been automatically excused from physical education, which would have developed stamina and grace, as well as lab classes. As a result, the students lacked the competitive spirit of their sighted peers.

□ The Institute tried to instill a competitive work attitude and raise self-esteem by demanding more of the students than anyone else ever had. The

Financing

Budget

Ten cooperating organizations

Employers

Students

"Boot Camp" Approach

philosophy of working with each person at his own speed gave way to a "boot camp" approach that constantly pushed the group to achieve. Over and over, the Institute stressed that no one could gain respect or independence in the sighted world if he expected special privileges. The blind worker would have to meet the same standards as his sighted peers. Accordingly, if a student was five minutes late for work, he lost an hour's pay; if he was late for class, he did extra laps or push-ups in the gym; if he violated dormitory rules, he received extra housekeeping responsibilities, such as cleaning the bathrooms. College employees coming in contact with the students were instructed not to give them special help.

Students had no idea the Institute would be so demanding, and initially took out their resentment on the staff. But their attitude changed once they understood the high regard in which the staff held them and their abilities. Regularly scheduled rap sessions with the staff and specially trained volunteers defused tension, improved the group's self-image, and opened up new possibilities as the students responded to Institute expectations.

□ The Institute opened with tests in mobility, daily living skills, physical fitness, and vocational skills. Individualized programs resulted. Three standard psychological tests, the Adolescent Emotional Factors Inventory, the Coppersmith Self-Esteem Inventory, and the Adjective Check List, were administered to help evaluate the Institute's effectiveness in changing attitudes. Like all the tests, they were repeated at the end of the program.

During the first week, students attended seminars on the problems of blind persons in finding employment and were processed through the optical aids clinic. Then they received personalized evaluations of their dress and general appearance. Cosmetologists taught the use of makeup and similar skills. Area businessmen lectured on job-hunting techniques and conducted mock interviews. At the end of the week, each student received an appointment with a possible employer as well as suggestions for upgrading his own employment potential. The student had to find the place of business and sell himself as an employee.

One student dropped out before the interviews. Of the remaining 27, three students were late for their appointments. All students were hired except one, primarily because of his other handicaps.

□ Aside from four hours daily of work experience, the Institute included a unit of daily living skills. Traditional skills of cooking, sewing, and grooming were supplemented by techniques in money management and independent living. Students set up checking accounts, made budgets, shopped, used laundromats, dined out, and learned basic social etiquette. Boys changed tires, washed and waxed cars, and studied basic auto mechanics.

Individualized mobility and orientation sessions began with city bus travel from the college campus to work and culminated in a day-long trip to an unfamiliar city. Twenty advanced students successfully traveled to San Francisco and returned in groups of two to four. Field trips to shopping centers, banks, airports, and bus depots acquainted students with the total community and provided practice in mobility, skills, and communications.

Student reaction

Testing

Seminars

Daily Living Skills

Mobility and orientation

Sensory development included lectures, seminars, and exercises to increase the efficiency of the remaining senses. Each student attended two hours of wood shop per week and used power equipment to complete a project demanding intricate, accurate cuts.

Sensory development

Social skills, an exercise in self-knowledge, stressed interaction with the sighted community. Sighted and blind youths explored their own attitudes toward blindness and toward the sighted world in weekly sessions. In individual and group counseling sessions, students were urged to express their feelings, anxieties, and frustrations. Staff members believe the resulting self-awareness did more to develop a desire for independence than any other Institute activity.

Social skills and attitudes

Physical education began with the California State Physical Fitness Test covering the 50-yard dash, standing broad jump, soft ball throw, 600-yard run-walk, sit-ups, pull-ups, and push-ups. None of the students had ever taken the test before, and all fell below the average, as could be expected. All improved in stamina, endurance, and performance after a minimum total of 20 hours per week in calisthenics, archery, fencing, trampoline, swimming, and diving. Classes in miniature golf, bowling, and skating were designed to increase skill and confidence in activities requiring involvement with sighted persons. Special activities such as bike riding and water skiing were included successfully, along with an optional week of camping after the Institute.

Physical education

□ Based on employer evaluations, the Institute was largely successful in job training. All employers stated that they would participate in the program again. At the end of the Institute, each completed a multiple-choice questionnaire on each student's work habits, performance, and experience. Topics covered were appearance, promptness, attitude, initiative, thoroughness, skills, and growth during the job period. Employers also answered four essay questions evaluating the student's strengths and weaknesses as an employee, the salability of his skills, and areas of possible improvement. Their reports confirmed the accuracy of staff observations.

Employer Evaluations

A large majority of employers said that they would hire their trainees permanently if they had openings; those who would not based their decision solely on the individual's performance. Two students were asked to keep working for the rest of the summer. Three others found part-time jobs elsewhere as a result of their work experience.

From the standpoint of the Institute directors, the program would stand or fall on the students' personal growth. Before the Institute, they subjectively rated each student as relatively dependent or independent, based on their observations of him interacting with sighted peers at school and at the Sacramento Society for the Blind. As it happened, half of the students fell into each group. The rating then became a backdrop for the three standard psychological tests administered and evaluated by Julie May, a master's degree candidate in home economics (child development specialty) at the University of California at Davis. Mrs. May reported in her master's thesis that all three tests showed a tendency of the total sample to improve in scores. Many more students changed scores on the Adjective Check List and the Self-Esteem In-

Institute evaluations

Psychological test scores

dex than on the Adolescent Emotional Factors Inventory. On all three tests, students whom the directors had classified as independent scored higher than those classified as dependent; in addition, females scored higher than males. The dependent students showed more significant changes toward better personality adjustment during the Institute, although they did not reach the high raw scores of the independent females.

Mean scores on the Adjective Check List showed that dependent females made the most improvements, followed by dependent males and independent females. Independent males made the least improvements and might even have regressed. On the Self-Esteem Inventory, dependent males improved most, followed by dependent females, independent males, and independent females. Mean scores on the Adolescent Emotional Factors Inventory did not show marked differences among the subgroups. Independent females scored highest on both pre- and post-Institute phases of all three tests.

Limitations of the study were a lack of controls on the influence of IQ, partial sight, multiple handicaps, and family and economic situations. Follow-up studies on participants have not been made, although all are still attending public schools.

□ The students left the Institute, as they had entered, with widely varying skill levels. Some advanced only in personal awareness. On the other hand, the college fencing instructor found no difference at the end of five weeks of training between a blind and a sighted youth starting at the same levels. Further, the college cafeteria manager praised Institute students for a breakage rate far below that of regular college students. In five weeks, only one student dropped a tray.

The Institute's one failure was with the parents. Five monthly meetings to educate and advise the parents were scheduled prior to the Institute, but the parents of only five students attended regularly. All parents attended the Institute's opening parent seminar, because they had to bring their children to the Institute. Less than half showed up for a mid-session report detailing the student's progress and the changes the parents might expect at home. At the close of the Institute, parents were offered individual sessions with Institute counselors to get a full report on their child's test scores, activities, and progress, but only three parents made appointments.

□ On balance, the Institute showed that blind adolescents can acquire and hold gainful employment if properly trained. They can make positive changes in attitudes and independence in a short period of time. The difficulty of extending these changes into the home environment, however, remains.

Dependent students improved the most

Limitations of the study

Summary

Parents

A Final Word

Coming Next Month

The June 1973 issue of the *New Outlook* will include articles on the battered child with visual impairment, counseling families with blind children, the small planning committee for club members, and curriculum standards for training in computer occupations.

Teaching School Children About Blindness

Each Wednesday morning about 80 children from grade schools all over New York City come to the Manhattan headquarters of the New York Association for the Blind (The Lighthouse) to learn about how it functions and the problems that people face in coping with blindness. The hour-long program, a part of the agency's public education effort that is presented by staff members and trained volunteers, not only enables the youngsters to get away from the rigid classroom atmosphere on a field trip, but also serves the strong educational purpose of correcting early misconceptions that children might have about handicapped people in general.

Lighthouse Public Education

The youngsters view a slide presentation showing the agency's various rehabilitative, social, and recreational programs, and then watch a short movie, "What Do You Do When You See a Blind Person?" produced by the American Foundation for the Blind. A question and answer session follows the movie. The questions of the students show their concern about the urban environment: subway travel, medicare benefits for special optical aids, the danger of muggings, crossing busy city streets, and hailing cabs. Some youngsters ask often detailed questions about glaucoma, cataracts, and other disorders of the eye, reflecting the high caliber of their education—and the high degree of their curiosity.

Questions and answers

□ A somewhat different approach to educating youth about the problems of blindness is being taken by the Westchester Lighthouse, a branch of the New York Association for the Blind, located in the suburb of White Plains, N.Y. A team of three well-trained volunteers is sent right into the classroom to teach students about blindness. One talks to the students about blindness in general, illustrating the talk with photographs. Another demonstrates the various techniques and personal living skills that must be developed in blind people, such as handling money, performing household chores efficiently and safely, and using braille. A third team member demonstrates and discusses mobility skills and the use of the cane and shows the students ways in which they can help a blind person.

Westchester Lighthouse

After the formal presentation, the students are encouraged to show how well they have learned the concepts. Student volunteers are called for and, wearing blindfolds, they act out the roles of blind people and try to perform simple tasks that they were taught. This very real role-playing experience solidly impresses on the minds of the young people the problems of blindness and the importance of good training and teaching for rehabilitation.

Role-playing experience

Hindsight

A Boat Is a Kite

I've come to the conclusion that one of the worst frustrations for a blind person is found in an activity that has real meaning for other people. I mean sight-seeing.

Now that may sound like a stupid statement. Naturally, a blind person can't see the sights, and if he's at all intelligent, just doesn't try. But a blind person cannot be a hermit. He or she, hopefully, has some friends—or family—with whom he socializes. Sooner or later, that group is going to go sight-seeing, and if the blind person goes along, it can be a real problem.

The most ordinary and generally satisfying form of sight-seeing is an American institution—the Sunday afternoon joy ride in the family car. There's undoubtedly a counterpart in all other countries; and, even of significance in this one, is the hike in the woods, the stroll in the park, or the bicycle trip. There are, of course, values and pleasures other than seeing the sights. There's a destination, perhaps, like dropping in at uncle's to see the new baby, or stopping at that little spot that has the extra-special ice cream, or taking someone to the airport, or just getting out of the house for a while and giving mother a break from boredom. In my experience, however, sight-seeing becomes the major preoccupation.

The problem for the blind person, it strikes me, is not the obvious one. Sure, if you aren't darned well adjusted to your blindness, the inability to observe the landscape, or other attractions, can be painful, but most of us learn to live with it and not get the blues. It's the conversation that kills me.

"Say, look at that!" somebody says, ecstatically.

"Golly!" somebody else says, "Isn't that something!"

"What?" you ask. You're told that it's sort of hard to describe.

"Slow down, pop," somebody urges the

driver. "I want to get a good look at the way they've changed the lake front. You can see it real good just a little ways up here." Pop slows, then pulls off the road and lets the motor idle. It's the only sound. No one says anything for a long, studious moment.

"What's it like?" you ask. You're told that it's sort of hard to describe. Somebody says it looks better without the old fishing pier.

"Old fishing pier?" you ask. You're advised that there used to be an old fishing pier there.

"What's there now?" you ask. You're told that there's a new fishing pier.

"What's the new fishing pier look like?" you ask. You're told that it's sort of hard to describe.

Then there's the category of object that just everybody must take a look at, or you'll be left out of most conversations in the future. Take that tower in Seattle, the one that has a revolving restaurant at the top. It's evidently sort of hard to describe, too; and if you haven't seen it, I'm not going to try. Besides, I haven't seen it. A blind colleague of mine thinks he has—a candlestick on the restaurant table turned out to be a miniature replica of it, small enough to hold in his hand.

This seems to be the fundamental motive for sight-seeing—talking about it. When one takes a good look at the new fishing pier, he really isn't noting detail; he's drinking in the total scene through a pair of good eyes transmitting to a relatively disinterested brain. Some days later an acquaintance will ask whether he has seen it. The reply will be a brief admission that he has.

"What's it like?" the friend asks. He's told that it's sort of hard to describe.

There are some types, however, who not only do not find things hard to describe, but are real demons for description. These are the ones that a blind person must learn to identify quickly, and thereafter not ask

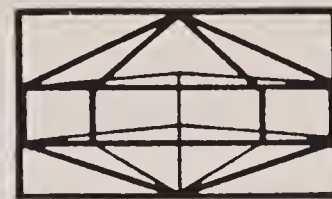
questions. These people will answer. You get an exhaustive report of line and form and architectural period, and a verbal backdrop of hues and shadows and glimmering light. You really didn't want to know that much—even about that particular object—and once this type begins to describe you get filled in on everything.

Then there's the type of blind person who *really* wants to know. This can be something! Especially when he gets hooked up with the describing type. The rest of the party usually manages to wander off while he satisfies his intense interest in the shape of leaves, the horticultural mystery of why a palm tree would grow *here*, and what you can see from the top of the ridge.

Memory tells me that among the grandest things to see is a boat—especially one under full sail—and a kite—or perhaps, even better, several sailboats and a skyful of kites. A most poignant sight is a kite that dangles in loneliness from a treetop or telephone line—suspending there the heart of some little boy. If you've never seen these things, then nobody can describe them to you. The best you can do is to try to emulate what others do with them, and derive satisfaction from your own accomplishment. But with curious analogy, frustration inevitably is encountered here again.

Oh yes, a blind person can fly a kite and sail a boat. At least, he can perform the movements that cause the kite to rise and the boat to move into the wind or run before it. The ultimate goal is unattainable, though. You cannot watch the bobbing or the graceful grandness of the kite on high. You cannot thrill to the plunging of the bow into the foaming wave, the taut billowing of the topmost sail, and the delight of leaving a friendly stranger's boat behind.

Even the technique of flying a kite or sailing a boat seems akin to the problem of ability to comprehend without distant



Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action.

Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

vision. With several hundred yards of kite string paid out from the reel, one has lost all but visual contact with this paper-and-wood contraption that seems now to have a life and a mind of its own. A sailboat, too (especially a large one), comes alive when properly trimmed, and while a lot of sailing can be done by the seat of the pants, vision must detect the warning sign of a beginning flutter in the sail or the scudding ripples that tell of the approach of a squall across the face of the water.

Unanticipated, action at the wheel comes too long delayed, and the steersman unwittingly puts the wheel over a bit too hard for what the situation warrants.

"She didn't need that much," the captain says. "You have to learn that she's slow to respond. Put the wheel over the other way fast, but watch out you don't overcompensate."

And so, the blind sight-seer has to compensate. You refrain from too many questions that others cannot answer; you wait

till later to ask specific details; you offer information from other sources; you deeply appreciate the friend who knows how to describe—and when. Like me, you leave kites to the small fry for whom they were invented. Like me, you collect ship models.

—M.R.B.

Reprinted from the November 1963 issue of the New Outlook for the Blind.

Review



New Life for Millions: Rehabilitation for America's Disabled, by Russell J. N. Dean. New York: Hastings House, 1972. xi + 180p. \$6.95.

A World to Care For: An Autobiography, by Howard A. Rusk, M.D. New York: Random House (A Reader's Digest Press Book), 1972. xii + 307p. \$7.95.

But Not on Our Block, by Henry Viscardi, Jr. New York: Paul S. Eriksson, 1972. xx + 203p. illus. \$6.95.

Reviewed by Clayton A. Morgan, Ed.D.

History is full of paradoxes and ironies. For example, it is amazing that it was from the tragedy and ashes of two world wars that the rehabilitation movement received its greatest impetus. What a price to pay for an awakening to a need that was there all the time! Sometimes it seems that when a thousand men die one at a time in widely separated places the effect is much less than when a hundred men die in one place at the same time. Likewise, when one handicapped child in a community is given special attention and care most people will smile and nod approval . . . but multiply that child by several hundred and suggest establishing a school in your own neighborhood and you could very well have the fight of your life on your hands.

These three books have many things in common. Each in its own way reflects the tenacity and determination and moral courage which is required to break the enslavement of prejudices toward the handicapped. Each also demonstrates what can be accomplished when a person invests himself fully in a great idea. Several years ago a graduate student, Delvin Sparks, wrote a paper on "How Does an Ant Eat an Elephant?" It was a consideration of factors utilized in coping with the many complex problems of attempting to integrate persons with handicapping conditions into the mainstream of society. The student concluded the paper with: "How does an ant eat an elephant? An ant eats an elephant one bite at a time."

Likewise, one comes away from these books with the distinct impression that progress in realizing the goals of human worth and dignity in rehabilitation is not accomplished in a series of dramatic, overnight breakthroughs. There have been outstanding accomplishments in such areas as the development of better prosthetics, improved treatment facilities, and the introduction of programs which deal with the whole person, but each required much behind-the-scenes effort. Too, winning community support, establishing solid financial bases for funding, helping

eradicate subtle and not-so-subtle discriminations against the handicapped—all these demand the exploration and development of many alternative approaches; they necessitate the continuous "bite-by-bite" approach of dedicated people who labor for years sustained by their belief that human potential is a vast storehouse of unexplored wonders. They believe that, given the opportunity, marvelous things can happen in those segments of our population which have in the past been institutionalized, kept home, or considered hopeless.

Actually, rehabilitation pioneers are motivated by more than a "belief." They know. Time and again they have seen "the impossible" happen.

Many of these pioneers are included in *New Life for Millions*. The late Russell J.N. Dean, himself a veteran in rehabilitation work, has here presented a fast-moving résumé of the rehabilitation movement in the United States. As Harold Russell has stated in the foreword, "This is a vivid recounting . . . of one of the most dynamic and dramatic movements of modern times, which has sent and still sends action waves to countries and continents far from American shores . . . This book tells the story of the unusual people who gave us today's often-miraculous programs for res-

cuing seriously disabled people from oblivion. . . . I now have a clearer, brighter picture of events of which I was a part, thanks to the style, thrust and research of this volume."

Mr. Dean has developed the science and art of being both concise and comprehensive. His language is crisp; his word pictures are sharp and to the point. The unfolding drama of rehabilitation comes alive as he introduces a swift progression of leaders from both the past and present: Jeremiah Milbank, John A. Kratz, Mary E. Switzer, and three of the M.D.'s whose influence and lives are landmarks in the rehabilitation movement: Henry H. Kessler, Frank H. Krusen, and Howard A. Rusk.

But even while the spotlight is focused on these key figures, time and again in this book you get brief glimpses of the growing corps of men and women dedicated to the goals of rehabilitation. Sometimes working behind the scenes, sometimes in full public view, they have joined battle with one of the most stubborn enemies of all time:

negative attitudes and beliefs. To conquer these are the Davids who meet the fearsome but vulnerable Goliaths. They pit "can" against "can't," they see the barriers to self-fulfillment and independence of the handicapped as being largely man-made. Somehow, too, between Dean's words and paragraphs you sense there being a peculiar kind of satisfaction and inner strength which comes from having a part in helping batter down senseless obstacles standing between a person who is blind or retarded or in a wheelchair and the realization of independence.

The message comes across clean and clear: there is something innately right and decent about rehabilitation.

Perhaps the rapid development of the concept in the aftermath of war speaks of the need for humanity to prove it has a conscience for the positive and constructive. Shortly after the entry of the United States into World War I, Jeremiah Milbank provided the financial impetus for the establishment of what was to become later

the Institute for the Crippled and Disabled. In 1918 the U.S. Congress passed the Vocational Rehabilitation Act for veterans.

The seed of a great idea not only had been planted but was already growing. If the war-injured veteran needed special services, then why not the injured or handicapped civilian? "On June 2, 1920, a tragically disabled President of the United States signed into law the first Federal Act to provide vocational rehabilitation services for disabled civilians." It is interesting to note that this was not achieved before the projected legislation had been "blasted as socialistic, impractical, unconstitutional, Bolshevik, a waste of money, visionary, and paternalistic."

On the other hand, the bill was also blessed as "a humanitarian measure, a step to conserve workers, a good investment in people and the principle of self-support, a way to reduce beggary and the poor farms, and a simple measure to provide equal treatment of the disabled and the able-bodied in preparing for useful work."



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

**MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR**

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation

Since these modest beginnings, the author relates how the state-federal program of vocational rehabilitation has gradually been strengthened and expanded. Much credit is given to the administrative skills and vision of John A. Kratz for insuring the survival of the fledgling program in the early years.

Highlights are given of the legislative history of rehabilitation; many outstanding directors of state divisions of vocational rehabilitation are mentioned. Moving tribute is paid to Mary E. Switzer. Miss Switzer—experienced, wise, inspiring—is credited with having provided the kind of vision and leadership at the federal level which brought the vocational rehabilitation movement into the national spotlight.

On the medical front, the rehabilitation concept has made spectacular advances. As indicated earlier, the author recognizes the trail blazing efforts of such men as Dr. Henry Kessler, Dr. Frank H. Krusen, and Dr. Howard A. Rusk. Many other medical leaders past and present, are mentioned.

Doctors living in the early part of this century would have considered many of the present-day tools and knowledge as science fiction: dramatic improvements in prostheses, new treatment procedures for increasing the life span of the paraplegic and others with spinal cord injuries, etc.

Even with all the progress that has been made, Dean interjects a somber note in the epilogue. Today the rehabilitation professional is being charged with an added responsibility to work with those who have been disadvantaged and deprived. In some ways these kinds of handicapping conditions will tax to an even greater degree our skill and resourcefulness.

But Not On Our Block, by Henry Viscardi, Jr., deals with the author's experiences and impressions of what took place as he sought permission to construct a new, \$2,000,000 building for 200 handicapped children. Eventually the project was approved, but not before many of the local citizens had done everything they legally could to block locating the facility in their community.

The book is written in a modified kind of chronological sequence. There are numerous "flashbacks" to events which are associated with or have similarities to what is being experienced at a given time. The

author frequently refers to problems and successes encountered in the development of programs at the Human Resource Center which he is internationally known for having established at Albertson, Long Island, New York.

Parts of the book could be entitled "thoughts while musing." He shares with us his hopes, dreams, philosophy, frustrations, and observations. It is written in an informal, folksy fashion. From time to time the reader is brought back to the central concern—getting clearance to build a school for handicapped children. At other times the author may be giving details of what happened on a trip—or recounting the success story of someone at the Human Resource Center. Even so, the different parts fall into a readable pattern. One cannot help being captured by the contagion of this man's example as he responds to opportunities—and makes opportunities—to serve his chosen people.

This is the glue which holds the book together: the author's concern with prejudice directed toward the handicapped and ways and means of dealing with or overcoming this prejudice. It seems to permeate his life, to spur him on to even greater effort. Even when agonizing over whether or not to run for Congress (and considerable space is devoted to this), he returns again and again to his own feelings of how this decision would affect his dream of providing a better opportunity for those whom society views as "different."

To illustrate by a direct quote: "... I realized the depth of personal conflict in which I was involved. And as always, it was not I alone who was involved, or my family, or my desires. It was also the basic issue, this minority of which I was and must be throughout my life, a part. The whole meaning of minority shapes itself in the fact of permanence. You may run, hide, ignore it. But it remains. And you remain part of it, if you will or not ... Was it my role to serve this cause, or to find a wider horizon? Or was there any wider horizon to search for than a handful of humanity that happened to be called the crippled and blind?"

While the author felt that the majority of people in his community would accept his proposed school, he realized the power that can be exerted by a vocal and ener-

getic minority. "On the other side—the active minorities of the opposition—was always on call. In a world that is always too busy, too pressed for time, it is only the few who are able to take a day or a week off to organize the protestors against a day-care center or a library, to raise funds for some lawyer to shout and abuse and denounce, always for carefully developed pseudo-reasons. . . .

"I couldn't make the opposition see things in any different light. Who am I—a pair of colored glasses to change their vision of the world?

"Yet should you ask if I could change their *thinking* about disabled people: I believed I could. But I could only do this in degree, not in kind. And that is really the issue we have to face here. I could make them understand that disabled people can work, they are trainable, they can support themselves. But could I change their prejudice about having me as a husband for their daughter with my twisted stumps in artificial limbs? Could I change their prejudice against having a school for crippled children in the neighborhood? The answer is no. They would believe in the need, they would believe theoretically at least in the right of a legless man to marry somebody perhaps. But must it be their daughter? Must it be in their neighborhood?

"This is their problem; it is still—even today—the problem of mankind."

This book is permeated with a plea for justice and fairness, for putting people ahead of things. Those who dare to care will find a kindred soul in Henry Viscardi.

For those of us who work in rehabilitation, *A World to Care For* is a book we can return to again and again to find encouragement and inspiration. After reading this autobiography of Dr. Howard A. Rusk, I was struck with a novel idea: would it be possible for such a person to write an autobiography using almost exclusively the case studies of people who have been touched by his influence and ideas?

To a significant extent this is what is accomplished in this book. Instance after instance is given of how handicapped people have found new life and hope through the resources which have been made available through his efforts. Many of their accomplishments—some made in the face of near-unbelievable handicapping condi-

tions—mirror his philosophy and approaches more eloquently than any literary masterpiece.

The book is written in an easy-flowing natural style. For me it was almost a conversational approach—as if I were in a small group and Dr. Rusk was sharing his life experience in an informal way. Frustrations and disappointments are related in the same matter-of-fact way as successes. Human factors of compassion and concern run like a warm, living, connecting thread through all the chapters.

The author relates experiences about his early years in Missouri, how he helped work his way through medical school, of initiating his medical practice in St. Louis. During World War II, while directing the Army Air Corps Convalescent and Rehabilitation Services, he developed ways to deal with the whole man. His perceptiveness and ingenuity in using the dynamics of human behavior served him well in overcoming the usual bureaucratic prob-

lems when trying to introduce a new concept. His accounts of dealing with obstacles—not only in the Army but throughout his career—should inspire anyone to fresh effort when he feels that he is blocked in the pursuit of the ideal of “helping handicapped people to better help themselves.”

In the years since his discharge from the Army, Dr. Rusk has won international recognition as the founder of the Institute of Rehabilitation Medicine in New York which has pioneered in the introduction of many innovative rehabilitation techniques. He also helped establish the World Rehabilitation Fund and has been, and still is, involved in many other rehabilitation activities.

Demonstrating the patience and courage which is a characteristic of the person who dares to try new ideas, Dr. Rusk frankly speaks of differences he has had with colleagues in the medical field. But in the long run this has been of small conse-

quence. In due time the quality of what he and his staff have accomplished has stood boldly on its won merits. Many of the concepts which he introduced as new 25 years ago are today thought of as commonplace.

A number of selected quotes will illustrate some of the points we have made, while introducing some additional ones.

“There is no substitute for tender loving care.”

“Your patients become your friends—and if your friend needs you, then you simply have to go.”

“With time our concept of rehabilitation had grown, and we realized it was not enough just to treat a man’s physical needs. We had to worry about his emotional, social, educational, and occupational needs as well. We had to treat the whole man.”

“... some things are more important than rules.”

“In our institute, the best psychologists are the patients themselves.”

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

"Our experiences in cancer rehabilitation during this time was another reminder to us that what we knew about rehabilitation was only a fraction of what we didn't yet know."

"You have to put the clay through the white heat of the kiln if you want to make porcelain. Heat breaks some pieces. Life breaks some people. Disability breaks some people. But once the clay goes through the white-hot fire and comes out whole, it can never be clay again; once a person overcomes a disability through his own courage, determination and hard work, he has a depth of spirit you and I know little about."

"If I sometimes become impatient at the slowness of total acceptance of rehabilitation needs, it is because millions of valu-

able lives are wasting away unnecessarily, because at this moment throughout the world millions of handicapped people lying helpless in their beds could be up and about, doing constructive things. It has now been proved beyond question that 90 percent of even the severely disabled have the capacity, if they get proper training, to take care of their own daily needs, and in many cases, to return to gainful employment in a competitive society."

There are many more provocative quotes in this book. Pick it up and you will find it difficult to lay it down until you have read it from cover to cover. Here you can experience a man who is both great and humble, who speaks of failures as well as successes, who is honored as one of the

most outstanding physicians of our day and yet has a concern for the whole man, who feels, for example, that selective job placement in a given case may be as important as an artificial limb. Here you find one who dares to put faith to work, who is resourceful and creative, who evidences a basic trust in people. His life is a monument to the belief that there are ways of assisting our handicapped citizens to be rehabilitated so that they may lead useful, productive lives.

Dr. Morgan is professor of psychology and coordinator of the Vocational Rehabilitation Counselor Training Program, Oklahoma State University, Stillwater.

Comment

A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be approximately 350-1,000 words in length.

Teaching Blind Illiterates to Read

Claudell S. Stocker

I was surprised to read in the "Comment" section of the *New Outlook for the Blind* (January 1973, "Teaching Braille to Slow Students," by Suzanne Johnson, pp. 38-39) that the teaching of remedial reading for blind persons is still a problem in some areas. During the last ten years a good curriculum in remedial reading has been developed to satisfy this need.

When I began my work at the Kansas Rehabilitation Center for the Blind some 13 years ago, I immediately encountered the

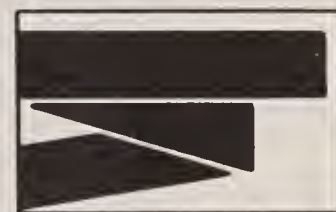
problem of working with newly blinded illiterate individuals. Having been a teacher of the mentally retarded and the disabled for a number of years before and working with the blind, I recognized that this was not an unsolvable problem, but that it had to be dealt with.

There are hundreds of books in print that deal with this specific problem. One of the first people that I contacted and worked with was Dr. Samuel Kirk of Northwestern University. Dr. Kirk had spent many years working on the problem of remedial reading and I had used much of his material in my former work. We recognized that here in the Center we could not use the standard braille textbooks since people did not know how to read phonically or were otherwise able to learn the alphabet but were not able to read the words. We therefore set about to work on a curriculum to be used with blind persons.

During the past ten years we have had

approximately 100 adult clients who were illiterate on their entrance to the Center. We set up an educational program for them whereby we worked two hours each day during their 17-week stay. This usually included remedial arithmetic as well as remedial reading. The textbook that we use, entitled *Remedial Reading*, is embossed by the Kansas Braille Association in Wichita and has been ordered and used by many people throughout this and other countries. This book was reviewed and approved by Dr. Kirk. It is also used in helping many young adults who are very poor spellers.

Many of my colleagues in other rehabilitation centers now use this primer in teaching illiterates to read. The book was described in the syllabus on communication skills that was compiled several years ago under a special grant from the Arkansas Enterprises for the Blind. I do feel, however, that any good, standard book devoted to remedial reading would be just



OPTISCOPE®

Illuminated Enlarger System

MODEL C

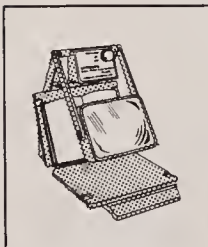
see any print
ILLUMINATED
and **ENLARGED**
in black and white
or full color

**A MORE
SELF-SUFFICIENT LIFE
FOR THE PERSON
WITH LOW VISION**

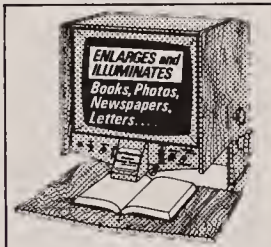
\$295

f.o.b. Hempstead, N.Y.

Also available from Opaque Systems Ltd.



**Better Vision
Lens System
MARK V**



**Electronic
Enlarger System
ELECTRO CC 5000**

The Optiscope Illuminated Enlarger System-Model C is a *new medical instrument* that now enables thousands of partially sighted persons and persons with low-vision capabilities to read books, newspapers, magazines and personal letters, or to view treasured photographs. All in black and white and full color.

The Optiscope projects an illuminated image on a large 9 in. x 14 in. polarized screen and the unique OPTILITE Comfort Control regulates the illumination for one's personal comfort. The unit is compact, portable (only 14 pounds) and simple to operate.

Also available from Opaque Systems Ltd., is the Better Vision Lens System-Mark V with the Optilite Comfort Control and the Electronic Enlarger System Electro-CC5000, a single unit, compact, self-contained closed circuit television system.

Write or call to order any of these low-vision aids or for additional information and color brochures.

Copyright ©1973, Opaque Systems, Ltd., Hempstead, N.Y. Patented, other U.S. and foreign patents pending. Specifications and prices subject to change without notice.

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

as appropriate to use with blinded adults, provided of course that it were transcribed into braille for the student's use.

Before any person begins on any braille program in our Center, whether it is remedial or restorative, he is given several weeks of preparation in reading readiness, using the *Kansas Braille Reading-Readiness Book*, published by the American Printing House for the Blind. It is just as

important to prepare the illiterate individual to learn to use his tactile perception as it is for a sighted person to develop his visual perception. After completing the reading readiness program, the illiterate person goes into the remedial reading text rather than into a standard braille teaching text.

I hope these brief remarks will be of use to those of my colleagues who are faced

with this problem and who were not aware of the materials and curricula that have been developed to teach reading to blind illiterates.

Mrs. Stocker is coordinator, Communications Department, Kansas Rehabilitation Center for the Blind, Topeka.

How Many of Us Are Extraordinary?

Carl T. Rodgers

After referring to Harold Krents, author of *To Race the Wind* (New York: G.P. Putnam's Sons, 1972), as "an extraordinary person," Dr. Tessie Okin, reviewer of the book (*New Outlook for the Blind*, December 1972, pp. 377-80), asks the question which I have used as the title of this comment. The question is left unanswered because Dr. Okin knows there is no answer to it; but, inevitably, there is always the "superman" syndrome whenever fate focuses the limelight of publicity on a blind person. To the public at large, blindness is *ipso facto* extraordinary.

Perhaps the most damaging result of this "ipso facto" is the attitude which it engenders in blind persons toward those with sight.

Oh, foolish people of the world with sighted eyes;

Yet you do not see. . . .

Do you appreciate the sight of a flower. . . ?

And do you feel a sense of awe when on a mountaintop

In looking down, you see the wondrous view?

Even if I had never read the beautiful visual descriptions of Shakespeare, Thoreau, Poe, and many other outstanding sighted authors, as a blind person I would consider it rather arrogant—and what is more, pitiful—to address such "whistling in the dark" questions to my sighted counterparts. If there is an important lesson to be learned from *To Race the Wind*, it is the lesson that the attitudes of the blind toward the sighted must be dealt with as

much (I say even more) than the attitudes of the sighted toward the blind.

For instance, do waiters, as so many blind persons claim, think that the blind customer is either deaf or deprived of mentality? Is not the problem rather one of human psychology? It is well known that the first step in human communication in most situations is initial eye contact. When a human being is incapable of matching or responding to this initial eye contact, the normal process of starting rapport is seriously unbalanced. To compensate for this imbalance, the waiter—or whoever—will seek eye-to-eye contact with the next immediately available channel—the blind person's companion.

The human relations role played by vision and the imbalance created when somebody does not possess sight should be included in the education of every congenitally blind person and in the rehabilitation of every adventitiously blinded person. This aspect of education and rehabilitation is all-important. Ignoring it, as is currently being done, results in blind persons never being able to develop the power which they alone can and must possess—namely, the ability to take the initiative in putting their sighted peers at ease.

One final remark concerns the following passage from the review: "A philosophy which says that children should be treated fairly and equally *with no quarter given for handicap*, has its very real, positive rewards. . ." (emphasis added). I want to state categorically that the belief that seriously handicapped persons, such as the blind, can survive on this earth "with no quarter given" is an unadulterated myth. All who know the history of the education

of blind persons are aware of their pitiful plight before Valentin Haüy gave formal birth to the education of these persons. Have no doubt about this: if agencies for blind persons were to disappear, if special facilities for blind persons (printing houses, transcribing services, school programs for blind and visually handicapped persons, rehabilitation centers, etc.) were to cease to exist, blind persons, without a doubt and with very few exceptions, would revert to the pre-Haüy days of humiliation, mendicancy, and general wretchedness.

In brief, the root of the daily living hardships, loneliness, and all sorts of deprivations faced by handicapped persons cannot be eradicated by assuming that attitudes constitute the handicap. The fact is that for the most part it is the handicap as such, be it deafness, blindness, physical paralysis, or mental retardation, which is the root and source of the handicapped person's problems; the difficulties imposed by attitudes, and indeed the attitudes themselves, are simply a by-product of being handicapped. We must therefore find the remedy for all the miseries brought about by handicaps through the development of methods and techniques which will minimize to the fullest possible extent the effects brought about by sensory, motor, or mental deficit in the human individual whom we designate as "handicapped."

Mr. Rodgers is a specialist in sensory aids, Program Planning Department, American Foundation for the Blind, New York City.

PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

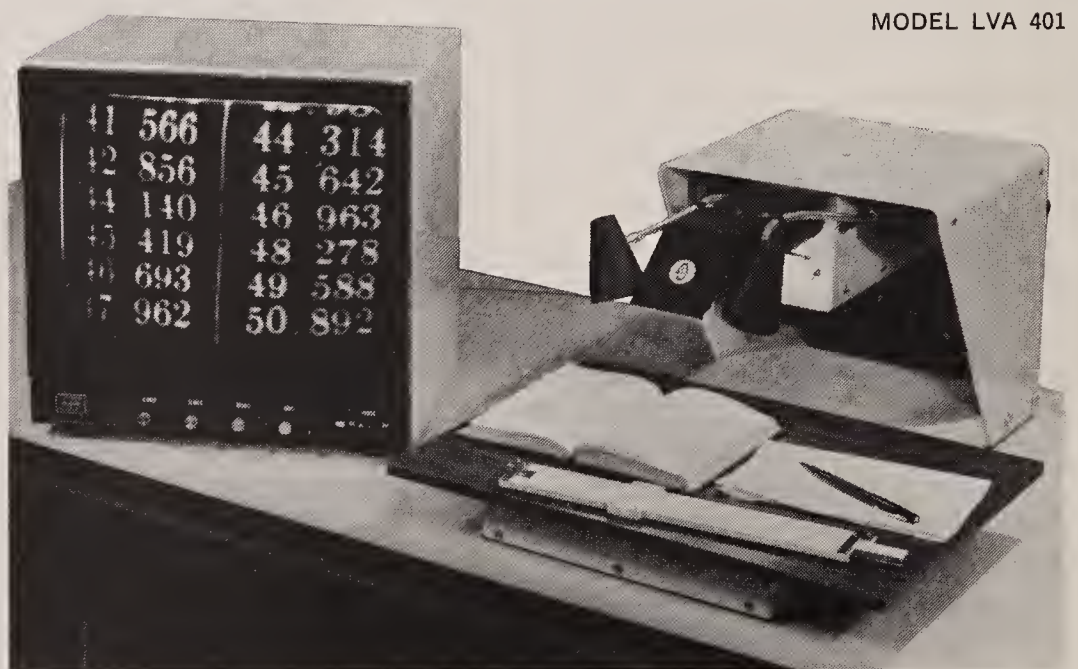
FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)



MODEL LVA 501

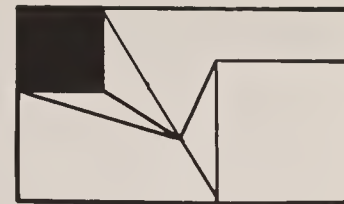


MODEL LVA 401



351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402

Letters to the Editor



Evaluations of the Sonic Glasses

To the Editors:

Regarding the article "The Sonic Glasses Evaluated," by Leslie Kay (*New Outlook*, January 1973, pp. 7-11), it should be noted that in the United States there were several other evaluations of the sonic glasses. One of those, of which I was project director, is *Evaluation of the Binaural Sensor in Rehabilitation of the Blind*; Illinois Visually Handicapped Institute, 1151 South Wood Street, Chicago, Illinois 60612; January 1973; Department Health, Education, and Welfare Grant No. 14-P-55186/5-02.

It seems important for practitioners, blind users, and administrators to know what other evaluation approaches were used and the conclusions developed therefrom. Several agencies, public and private, and the Veterans Administration evaluated the device. Most of them probably responded to Dr. Kay's questionnaire. I know we did.

We were not content, however, with that instrument alone, because it was developed independently of our own evaluation procedure. We felt it important to follow through as best we could on the basis

of our original proposal to the granting agency. Our report, which is concise, reflects that attempt. Our method was different, but therein lies its value; it provides workers in the field with a different perspective for evaluating and judging the sonic glasses.

Those interested in our report can write to the Illinois Visually Handicapped Institute for a copy.

Thomas J. Murphy, Superintendent
Illinois Visually Handicapped Institute
Chicago, Illinois

Confidentiality

To the Editors:

The symposium on "Confidentiality and the Schools" (*New Outlook*, February 1973, pp. 49-65) raises questions in my mind about other aspects of confidentiality. For example, we understand that some agencies still subscribe to the Social Service Exchange, through which they clear information concerning clients who may be known to several agencies.

We understand that information so secured enables agencies to get in touch with each other concerning mutual clients and to share information presumably of benefit to the clients. While this procedure may limit the client in his search for the kind or quality of service he desires, it is explained by saying that in this fashion "duplication of service" is avoided.

If memory serves me, the Social Service Exchange was established in the 1930's because of the duplication of money grants to needy individuals that resulted from the

lack of clearance between agencies. When public welfare programs took over this function, the central purpose of the exchange was obviated. The exchanges were then converted to the present purpose.

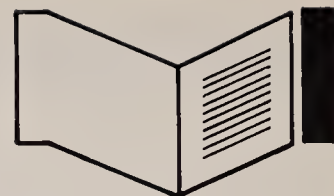
Is the use of such exchanges a violation of confidentiality? Does the client have the right to expect that information given or the fact of his appeal to an agency will go no further? Is there a more "legitimate" way of getting the desired information—from the client, for example?

Then, we should consider the telephone summaries exchanged between agencies, i.e., a staff member of one agency calls a staff member of another agency and informal statements are exchanged. Is the client advised about this? Does he have the right to know? Should the purpose of the required information be an essential consideration that is shared with the client? Is the telephone the appropriate way to handle such information? Is it well thought out, considered, objective?

Our agency conducts a camp. Periodically, other agencies that conduct camps request us to exchange lists of campers with them. The purpose, we understand, is to prevent duplication and thus be able to serve more people. Should lists be exchanged? Do the campers know in advance that this will be done?

In conclusion, if it is determined through thoughtful consideration of the various ethical questions involved that exchanges of certain types of information are essential between agencies or, more important, essential to assist the client, shouldn't clients be advised in advance each time that particular exchanges are being made and that certain consequences may result?

Harry Minkoff, Executive Director
Vacations and Community Services
for the Blind
New York, New York



A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

Recreational Activities for the Visually Handicapped, by Robert W. Bischoff. *The Utah Eagle* (846 Twentieth Street, Ogden, Utah 84401), Vol. 84, No. 4, January 1973, pp. 1-4, 7, 9. Dr. Bischoff, who is principal of the Utah School for the Blind, discusses a wide variety of recreational activities, including dance, tumbling, swimming, wrestling, team sports, camping, fashion shows, and the keeping of pets.

The Paget System at Pathways, by Joan Shields. *Special Education* (Association for Special Education and the Spastics Society, 12 Park Crescent, London, W. 1, England), Vol. 60, No. 2, June 1971, pp. 11-14. The author is the teacher in charge of the Path-

ways unit for deaf-blind children at Condo-ver Hall School for the Blind near Shrewsbury, England. The Paget System, a systematic sign language, differs from other sign languages in that it is not based on finger spelling and it can be used word-for-word as in spoken English. The 2,500 words in the vocabulary have signs which resemble Egyptian hieroglyphics in that many are pictorial representations. Most of the children in the training group had been handicapped from birth (maternal rubella) but none of them were totally blind. Reprints should be requested from Miss Joan Shields, Condo-ver Hall School for the Blind, Shrewsbury, England.

The Blind Student and the Skinner Box, by Wilbert S. Ray and C. Edgar McDonald. *The Psychological Record* (Denison University, Granville, Ohio 43023), Vol. 21, No. 1, Winter 1971, pp. 35-36. Detailed descrip-

tion of the modification of a Skinner box as used by a blind student in an instructional psychology laboratory. Reprints should be requested from Wilbert S. Ray, Bethany College, Bethany, West Virginia 26032.

Verbal Mediation on a Nonvisual Formboard Task With Blind, Partially Sighted, and Sighted Subjects, by W. Charles Koestline, Oran B. Dent, and Leonard M. Giambra. *Journal of Consulting and Clinical Psychology* (American Psychological Association, 1200 17th Street, N.W., Washington, D. C. 20036), Vol. 38, No. 2, April 1972, pp. 169-173. Report on a comparative study which failed to find that verbal mediation facilitated formboard performance, indicating that the formboard could be useful as an indicator of brain damage in congenitally blind and partially sighted subjects. Reprints should be requested from W. Charles Koestline, Department of the

New From AFB

Retrolental Fibroplasia and Autistic Symptomatology: An Investigation Into Some Relationships Among Neonatal, Environmental, Developmental, and Affective Variables in Blind Prematures

Joan B. Chase

Research Series, No. 24 □ 264 pages □ \$4.00

Payment must accompany all orders totalling \$6.00 or less.

Order from:

**Publications Division, American Foundation for the Blind,
15 West 16th Street, New York, New York 10011.**

Air Force, Wilford Hall, United States Air Force Medical Center, Lackland Air Force Base, Texas 78236.

Social Comparison of Opinions Among Blind Children and Adolescents, by Stephen F. Morin and Reginald L. Jones. From American Psychological Association (see address above). *Proceedings, 80th Annual Convention, 1972*, pp. 721-722. Report on a study using a structured interview procedure with institutionalized blind school-age subjects in an attempt to verify Festinger's theory that "given a range of possible persons for comparison, someone close to one's own ability or opinion will be chosen for comparison." Reprints should be requested from Stephen F. Morin, California State College, 5500 State College Parkway, San Bernardino, California 92407.

Haptic Perception of the Mueller-Lyer Illusion by the Blind, by James Patterson and Kenneth Deffenbacher. *Perceptual and Motor Skills* (Box 1441, Missoula, Montana 59801), Vol. 35, No. 3, December 1972, pp. 819-824. Report on a comparison study using four groups of subjects, congenitally blind, blinded in adulthood, sighted blindfolded, and sighted visual. Reprints should be requested from Kenneth Deffenbacher, Department of Psychology, University of Nebraska at Omaha, Omaha, Nebraska 68101.

"Time Compression and Expansion of Speech by the Sampling Method, by Francis F. Lee. *Journal of the Audio Engineering Society* (60 East 42nd Street, New York, New York 10017), Vol. 20, No. 9, November 1972, pp. 738-742. Paper, presented at the 42nd Convention of the Audio Engineer-

ing Society, May 4, 1972, in Los Angeles, gives a brief review of historical development in the field and discusses new methods made possible by recent advances in electronic circuitries. Reprints should be requested from the author, Department of Electrical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139.

The Optacon, a Boon to Visually Handicapped? *The West Virginia Tablet* (West Virginia Schools for the Deaf and the Blind, Romney, West Virginia 26757), Vol. 96, No. 4, February 1973, pp. 18-20. An interview with Dr. Robert Stilwell, chairman of West Virginia University's Department of Foreign Languages. Dr. Stilwell, who is blind, relates his experiences in using the Optacon himself and in teaching others to use it.

In Brief

■ The National Accreditation Council for Agencies Serving the Blind and Visually Handicapped has been appointed an organizational member of the President's Committee on Employment of the Handicapped. Alexander F. Handel, executive director of NAC, will be the Council's official representative on the Committee.

■ Under Public Law 92-318, it is now illegal for a college or university receiving federal funds to refuse to enroll a student because of his blindness.

■ The American Printing House for the Blind has announced the availability of its new APH-modified GE M8355A cassette recorder. An illustrated brochure, giving a complete description of the machine is available on request from the American Printing House for the Blind, P.O. Box 6085, Louisville, Kentucky 40206.

■ The Optacon, the electronic optical-to-tactile reading device, is being evaluated at the Overbrook School for the Blind, Philadelphia, by the American Institutes

for Research under a grant from the U.S. Office of Education. The six-month study, being coordinated by Overbrook's Dr. Mary Anne Sullivan, involves teaching students to use the Optacon and testing their progress and reading ability with it.

■ Starting with the Spring 1972 issue of the semi-annual *Bulletin of Prosthetics Research*, BPR 10-17, published by the Prosthetic and Sensory Aids Service of the Veterans Administration, sections dealing with research on sensory aids for blind persons will be available on tape cassette for blind and physically handicapped readers. The cassettes will contain articles on sensory aids, items from the "Highlights of Other VA Research Programs" section, as well as pertinent parts of the "Notes and News" section. Materials available on cassette from each issue, BPR 10-17 and later, are shown in the print edition on or near the last page of the issue. Blind or physically handicapped persons wishing to borrow these cassettes should request "Sensory-Aids Excerpts from the Bulletin of Prosthet-

ics Research," specifying the desired issue, from the Division for the Blind and Physically Handicapped, Library of Congress, Washington, D.C. 20542.

■ Last year, the following request appeared in the letters column of the *New Beacon*, a publication of the Royal National Institute for the Blind, London: "Sir: I am interested in contacting any person with congenital blindness who has had any experience with extra-sensory perception and, in particular, telepathy.

"I am trying to do some research into the psychic potential of people who have been blind since birth. I would be most grateful if any person who has experienced ESP would write to me at the address below, so that I can support my research with facts from any blind person or persons who would be willing to help me.

"I shall be most grateful for any information that can be given to me.

"Dennis Sibley, 22 Castle Road, Newport, Isle of Wight, Great Britain."



■ Of 99 healthy male volunteers for a study of normal aging at a Veterans Administration outpatient clinic in Boston, those who had more loss of pulmonary function than others of their age over a five-year period also had greater shrinkage of the visual fields. According to ophthalmologist Benjamin Bell, director of the clinic and head of the study, "As people get older, the oxygen supply to the brain is diminished. . . . We look at the retina as an extension of the brain."

■ Fight for Sight, Inc., New York City, awarded \$265,660 for the current year in support of basic and clinical research in ophthalmology and its related sciences. Funding included 53 awards: 19 grants-in-aid, 14 postdoctoral research fellowships, 11 student fellowships, four Fight for Sight Children's Eye Clinics, two special awards, and three unrestricted departmental grants.

■ Nominations are now open for the two Employer of the Year Awards presented annually by the President's Committee on Employment of the Handicapped. One award goes to an individual or company with 200 or fewer workers. The other goes to an employer or firm with more than 200 employees. These awards are presented to employers who have established outstanding records in hiring and promoting job opportunities for persons with handicaps.

The deadline for receiving nominations is June 30, 1973. These awards are co-sponsored by the National Association of Manufacturers. For additional information, contact the President's Committee on Employment of the Handicapped, Washington, D.C. 20210.

■ The American Foundation for the Blind is seeking to give more emphasis to the development of job opportunities for blind persons and to techniques of training and placement, according to William F. Gallagher, director of the AFB's Program Planning Department.

The Foundation has not had a specialist in this area since the retirement of Arthur L. Voorhees in 1971 and is now looking for a specialist in employment. Further information may be obtained from Mr. Gallagher at the Foundation (15 West 16th Street, New York, N.Y. 10011).

■ The 1972 Annual Report of the American Telephone and Telegraph Company is available on request in braille and recorded form for the benefit of the company's blind share owners. Blind persons wishing a copy in either medium should address their requests to the Secretary, American Telephone and Telegraph Co., 195 Broadway, New York, N.Y. 10007.

Appointments

■ Blinded Veterans Association, National Field Service Program, Washington, D.C.: **Dennis R. Wyant**, director.

■ National Eye Institute, National Advisory Eye Council, new members: **Florence Dunbar, J.D., Ph.D.**, Chicago (attorney, educator, and civic leader); **Bradley R. Straatsma, M.D.**, Los Angeles (director, Jules Stein Eye Institute, and chairman, Department of Ophthalmology, School of Medicine, University of California at Los Angeles).

■ U.S. Office of Education: **Donald A. Deppe**, director, Veterans' Program Unit; **William F. Pierce**, deputy commissioner for occupational and adult education.

■ American Foundation for the Blind, New York City: **William Howle**, production manager, Talking Book Division (following the recent retirement of **Arthur Helms** who began his association with the talking book program in 1934, and who became production manager in 1951).

Awards

■ Recording for the Blind, Anne Thompson Macdonald Award for Distinguished Service: **Archibald MacLeish**, poet, playwright, and educator.

■ American Foundation for Overseas Blind, Helen Keller International Award for Outstanding Service to Blind Persons: **James S. Adams**, retired member of the board of the American Foundation for Overseas Blind and the American Foundation for the Blind, for his leadership in the medical research field (Research to Prevent Blindness, Heart Institute, Institute of Mental Health, Institute for Neurology and Blindness, American Cancer Society, and Warm Springs Foundation).

Coming Events

May 27-30 Medical Library Association, Kansas City, Missouri.

May 27-31 National Conference on Social Welfare, 100th Annual Forum, Atlantic City, New Jersey.

May 28-30 American Ophthalmological Society, 109th Annual Meeting, Hot Springs, Virginia.

May 28-31 American Orthopsychiatric Association, 50th Annual Meeting, New York City.

May 29-June 1 Northeast Regional Conference, National Rehabilitation Association, Yarmouth, Nova Scotia.

June 3-5 Great Lakes Regional Conference, National Rehabilitation Association, Milwaukee.

June 3-6 International Association of Rehabilitation Facilities, Fourth Annual Conference (Theme: "Accountability of Rehabilitation Facilities to the Individuals and Communities They Serve"), Miami Beach.

June 6-8 National Public Relations Council, Public Relations Institute, Chicago.

June 10-14 Special Libraries Association, Pittsburgh.

June 11-14 Pacific Regional Conference, National Rehabilitation Association, Honolulu.

June 18-29 Workshop in Rapid Reading of Braille, Culver-Stockton College, Canton, Missouri.

June 23-27 American Medical Association, 122nd Annual Meeting, New York City.

June 24-28 Israel National Society for Rehabilitation of the Disabled, International Symposium on the Disabled Adolescent, Bat Yam, Israel.

June 24-30 American Library Association, Annual Convention, Las Vegas.

June 25-29 American Home Economics Association, Atlantic City, New Jersey.

June 27-30 American Optometric Association, 76th Annual Congress, San Francisco.

July 22-25 American Association of Workers for the Blind, Biennial Meeting, Cleveland.

August 14-18 Blinded Veterans Association, 28th National Convention, Atlantic City, New Jersey.

September 3-5 International Eye Foundation, Society of Eye Surgeons, World Congress, Athens, Greece.

NOW SHE CAN READ...



and write with ease. With the Visualtek Read/Write System, the partially sighted person easily reads books, magazines, newspapers, and other types of printed materials. Its simple controls are "human engineered" . . . **Out front where they belong** . . . for fast adjustment, writing, typing, and even viewing blackboards and wallcharts!

Hundreds of Visualtek systems are now being used on the job, at home, and in schools by people from all walks of life — teachers, homemakers, lawyers, rehabilitation counselors, businessmen, students, etc.

Why did they choose the Visualtek way? Highest magnification (up to 60x); excellent contrast and enhancement of print; lightest in weight; options designed to meet their needs; and, significantly Better Service.

Write or phone today for information and the location of your nearest Visualtek representative.

VISUALTEK

1901 Olympic Blvd. — Santa Monica — Calif. 90404
Phone (213) 829-3453 or 870-8006

HELPING THE PARTIALLY BLIND TO BECOME PARTIALLY SIGHTED

international catalog of aids and appliances for the visually impaired

Leslie L. Clark, Editor

Contains listings for almost 1100 items from 19 countries in serial production. Listings include name of item, manufacturer's name and address, price, availability, and description. Where appropriate or useful, items are cross-referenced. For the first time, information on aids and appliances—from a large braille press to labeling tape to playing cards—is available, with ordering details, in one place. Catalog will be revised periodically.

More than 200 pages. \$2.00 per copy—ten percent discount on ten or more copies in one package going to one address.
Payment must accompany all orders totaling \$6.00 or less.

Order from:

**Publications Division, American Foundation for the Blind,
15 West Sixteenth Street, New York, New York 10011, USA.**



THE NEW
Outlook
FOR THE BLIND

June 1973 Volume 67 Number 6

Social and Medical Aspects of the Battered Child With Vision Impairment

Donna Zadnik, A.C.S.W.

Counseling Families of Severely Visually Handicapped Children

Helen E. Froyd, M.S.S.S.

The Small Planning Committee: A Tool for Meeting Human Needs

Walter B. Boninger

Curriculum Standards in the United States for Training Blind Persons in Computer Occupations

Charles E. Hallenbeck, Ph.D.

THE NEW Outlook FOR THE BLIND

June 1973 Volume 67 Number 6

Articles

- 241 Social and Medical Aspects of the Battered
 Child With Vision Impairment
 Donna Zadnik, A.C.S.W.
- 251 Counseling Families of Severely Visually
 Handicapped Children
 Helen E. Froyd, M.S.S.S.
- 258 The Small Planning Committee: A Tool
 for Meeting Human Needs
 Walter B. Boninger
- 266 Curriculum Standards in the United States
 for Training Blind Persons in Computer Occupations
 Charles E. Hallenbeck, Ph.D.

Departments

- 272 Editorial Notes
- 272 Hindsight
- 276 Comment—*Elisabeth D. Freund*
 Leslie L. Clark
 Alberta Munkres
- 279 Letters to the Editors
- 281 From the Field—Radio Stations and Programs for Blind Persons
- 284 Current Literature
- 287 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to 75c according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief

M. Robert Barnett

Managing Editor

Patricia Scherf Smith

Associate Editors

Mary Ellen Mulholland
Michael E. Monbeck

Social and Medical Aspects of the Battered Child With Vision Impairment

ABSTRACT: *Many children may be visually handicapped or blind due to child abuse. This possibility is often unrecognized by agencies and school programs serving visually handicapped and blind children. Workers should be alert to medical conditions and eye disorders that are related to child abuse, the general characteristics of battering parents or caretakers, and legal procedures designed to protect the abused child. Agency and school personnel may best serve families suspected of child abuse by offering immediate, consistent, and continuing emotional support employing a non-judgmental attitude. Close communication and mutual support among various professional workers serving the family are essential. Some experiences in an agency for the blind illustrate the possible tragedy of inadequate awareness of child abuse as well as some practical suggestions for serving the suspected battered child and his family.*

Four years ago, a 13-month-old child was referred to our agency by a local hospital. The child had severe visual problems and was almost totally blind. She had recently returned from a hospital stay for bursitis in her shoulder. The first time we saw the baby, she lay like a rag doll on the little blanket we had laid on the floor. She did not purposefully move a finger or wiggle a toe. If you turned her over, she cried; if you sat her up, she cried; if you put a toy in her hand, she cried. If you left her alone, however, she was quiet. We assumed she must have been left alone a great deal.

We were pleased with this referral. She was a baby, and at that time the Lighthouse was receiving very few referrals of babies. I thought to myself, "If we ever do anything with this child, it will certainly show that it pays to start at a young age." So we planned to see her mother frequently—once or twice a week at home—and followed our normal education-supportive approach. We loaned the mother a copy of the book, *How to Keep Your Child Fit from Birth to Six*, by Bonnie Prudden, and showed her some simple exercises for little babies. She was given some baby toys and rattles, and we explained that the baby did not know how much fun it was to play. The young mother was very sweet and cooperative, very quiet and charming in her own way. She had another young child who was healthy and chubby, and who toddled about the house.

The blind baby made excellent progress and became one of my favorites. After six weeks she was sitting on the sofa, waving a rattle and saying "ah-doo, ah-doo" in a pleasant and happy voice when I entered.

Then for several months progress leveled off. I did not see the baby as often as originally planned. One week the baby was rather fussy and the mother

DONNA ZADNIK, A.C.S.W.

Mrs. Zadnik is supervisor, Children's Services, Columbia Lighthouse for the Blind, Washington, D.C.

A Tragic Experience

Few babies referred

Excellent progress

This article is based on a presentation originally made to the Mid-Atlantic Regional Conference, American Association of Workers for the Blind, November 2, 1972.

showed me the baby's leg which she thought was sore. The mother and I checked it together, and indeed the hip joint was obviously painful. The mother asked if she should take the baby to a different clinic to be checked and I suggested that she go to the clinic where she felt most comfortable. That was Thursday. The following Monday, by telephone, a policewoman informed me that the child was dead, obviously severely battered. She asked if I had noticed any marks on the child.

□ Needless to say, I was quite shaken by this tragedy. My "successful" work with this child hadn't touched the real problem at all. Our agency had not been told this was a suspected battered child, but there had been many clues—and we had missed them all. I had given the mother plenty of education on how to deal with a blind baby, but I hadn't given her any idea of how to deal with her own angry feelings about a baby who cried too much and seemed retarded. We had begun with the best of plans to offer intensive services, but all too soon the appointments became too infrequent for us to provide this extremely needful mother with the support she required.

On Thursday of that same week I stopped at a nearby hospital clinic on my way to see another mother who was extremely anxious about her baby and who was seemingly quite angry with the clinic. The doctor told me that this baby, too, was a suspected battered child. The hospital social worker and I agreed that she would discuss the battering with the parents, while I would stand by to support the family. This baby was finally removed from its home, but only after many months of effort, two court hearings, and such severe brain damage—probably due to continued battering—that the child is now permanently retarded.

These two very tragic cases shocked our agency into a keen awareness of the "battered child syndrome" (Kempe, 1962). Since becoming aware of the symptoms and indications of the "battered child syndrome," we are convinced that there are at least six "suspected battered children" in our usual caseload of 35 youngsters under seven years of age. Four years ago we would have said there were none.

□ Hopefully, this article will help to bring this problem of child abuse to the attention of other agencies and school systems serving visually handicapped and blind children. We believe that many children may be visually handicapped or blind because of child abuse, but this fact is almost totally unrecognized in our professional field.

This problem has been discussed with a number of agencies and school systems serving children in this area, several of which are located in the suburbs. The typical reaction implies, "Of course you see that problem in the inner city, but it really wouldn't apply to us." Yet the incidence of battered child syndrome cuts across socio-economic lines (Gill, 1968). Though the preponderance of reported cases comes from the lower socio-economic levels of society (Gill, 1969), the problem is without question to be found in middle and higher income families, as well as in ghetto neighborhoods (Steel & Pollock, 1968; Delsordo, 1963).

In fact, in several of our families, we note that the parent or parents are

Death from battering

Clues Had Been Missed

Growing awareness

Six more are "suspected"

All Should Be Alert to Problem

An urban and suburban problem

Achievement and goals are stressed

striving very strongly to raise their socio-economic level, and that educational achievement is valued strongly. Even poor homes are often neat and orderly. For the most part, the parents on our caseload are regularly employed. Based on these observations, the problem should be of concern to any agency or school system serving the visually handicapped or blind child, regardless of location.

□ A battered child with visual problems does not differ significantly from the usual population of battered children, except that the physical abuse had damaged the child's vision. Visual functioning may be affected either by direct injury to the eye or severe injury to the brain. In our experience, children have not been abused because they are blind, but, rather, they are blind or have impaired vision because they have been abused.

Several investigators have observed that the majority of battered children are under three or four years of age. Of these, a large percentage are infants, under the age of nine months (Gill, 1968). The abusing person may be a parent, babysitter, older sibling, relative, or some other caretaker of the child. Though occasionally a whole family of children may be mistreated, frequently only one child in a family is abused (Kempe, 1969; Delsordo, 1963). This is an extremely important point. In one case, the parents brought the healthy, chubby sibling to court and demanded to know how they could have ever mistreated the other child. The judge dismissed the case.

The particular child who is battered may be the object of parental anger because the baby has been fussy and hard to comfort. Perhaps the parents have spent many sleepless nights with him and he offers little parental satisfaction (Davoren, 1968). Or the baby may have had the misfortune of being born a girl when the parents wanted a boy. Or he may have been an illegitimate child or step-child and thus represents "badness" to the parent (Wasserman, 1967). When this abused child is removed from the home, the parents may—or may not—displace their anger upon another child.

Some parents may be extremely remorseful about the injury of their child. Often, however, a child is mistreated as a form of punishment, and the parents feel perfectly justified in treating the child in this way. They feel the child has rightfully deserved it. One need not look far within his own circle of acquaintances to become aware of the tremendous amount of yanking and jerking, slapping and spanking which is administered openly to small children.

□ Steel and Pollock (1968) found no consistent personality patterns or histories of mental illness in the families involved in their study, but they did find similarities in the parents' attitudes toward their children and in the parents' own childhood experiences. One exception to this finding was a slight prevalence of compulsive personalities, that is, parents who had to have things very clean and in order and who could not stand the normal messiness of young children. Spills and accidents sometimes precipitated battering incidents.

Typically, the battering parent expects more of the young child than a child of that age can possibly deliver, and relates to the child more as "a small adult" than as a child. Punishment is administered regularly because the parents set impossible standards for the child (Steele & Pollock, 1968; Davoren, 1968).

We were quite impressed in our first meeting with one mother who sat

**General Characteristics
of the Syndrome**

Under three or four years

Object of anger

Punishment of the child

Personality of the Parents

High expectations

quietly waiting while her totally blind four-year-old daughter struggled to pick up all the spilled pop-beads on the floor, found a certain print book on the bookcase, and went to find an item in a far bedroom. How independent she allowed the child to be! A suspicious medical report caught us by surprise and led us to re-evaluate the situation completely. Instead of "allowing" her child to be independent, did the mother instead demand almost impossible performance standards from her apparently extremely well-behaved and cooperative daughter?

Often the parent looks to the baby for the satisfaction of his or her own emotional needs. Sometimes the baby is born with the mother's expectation that finally she will have someone to love her. The baby is supposed to love the parent and comfort her. If the baby cries, he is considered unloving or bad and rejecting of the parent, rather than needing a changed diaper or being hungry. In trying to help such a parent, one goal is to encourage the parent to satisfy his emotional needs through the worker rather than through the child (Davoren, 1968; Kempe, 1969).

Several studies have indicated that the abusing parents have often been battered children themselves, either physically or emotionally (Steele & Pollock, 1968). This is a significant fact as we think about the relationship we hope to establish with the parents. They have grown up with the experience that the person to whom they have looked for protection and comfort—their own parents—have also been their greatest source of danger. These parents view teachers, social workers, and doctors as similar sources of danger. For this reason, they require a very long time to build a trusting relationship. They may run away from efforts toward friendship; they may be submissive and apparently cooperative, while remaining basically distrustful.

There is some difference of opinion as to whether or not battering parents can be reached. Incidence of death, recurring attacks, and permanent injury in children returned to the home is high (Elmer, 1963). Boivert (1972) and Del-sordo (1963) describe various family pathologies related to battering and try to predict whether intervention can make the home safe for a child, or whether the child should be immediately and permanently removed. Steel and Pollock (1968), in a University of Colorado study, describe some hopeful results when a team comprised of psychiatrist, social worker, and pediatrician offers the family constantly available, very flexible, 24-hour support.

□ Even for the professional worker it can be difficult to identify the abusing parent. These individuals are as charming, gracious, and cooperative, or as remote and distant, as our general population of parents. Even after reviewing medical evidence, we have found ourselves sometimes saying, "I just cannot believe she (or he) could have done this." Not until we work very closely with the family and become familiar with family interactions, feelings, and attitudes do the dynamics of battering become more clearly evident.

How, then, does a school or agency know if it is serving a "suspected" battered child? The best clues are usually found in medical reports. It is imperative to send for complete medical reports on each new child referral. This means extra paper work and is very easily overlooked, but it is certainly im-

Unfulfilled emotional needs

Parents were battered as children

Can they be reached?

Identifying the Battered Child

Medical reports

portant. If the worker is somewhat familiar with the medical conditions that may indicate the battered child syndrome, he may then call the doctor for further information. We have yet to receive a written medical report that indicated specifically "suspected battered child syndrome." However, the occurrence of multiple fractures or subdural hematomas, as indicated below, is certainly a clue. We have been alerted to possible child abuse through a number of different channels, such as public health nurse or school psychologist who happened to have medical information unavailable to us at the time.

□ The medical diagnosis of "battered child syndrome" (Kempe, 1962) or "non-accidental injury" (Kempe, 1969) is often difficult to make and usually is determined only after much consideration by the physicians involved with the child. The determination as to who has harmed the child is frequently delegated to law enforcement officers, lawyers, or social workers who are involved with the family after the medical diagnosis has been made.

The following are some of the more common medical conditions related to child abuse (Kempe, 1962):

1. Multiple bone injuries (in the absence of bone disease), often in various stages of healing. Fractures are frequently found in the arms and legs which are easily grabbed, twisted, or pulled and in the skull. X-ray findings (roentgenograms) are particularly useful in diagnosis. However, some injuries of infant bones may not be detected on X-rays until several weeks after the injury when changes occur in the bone as a result of the healing process.
2. Subdural hematoma (collection of blood under the outer layer of the brain) with or without associated skull fracture. Subdural hematoma usually indicates severe trauma and "a fall out of bed" is seldom sufficient explanation.
3. Bumps, bruises, burns, or bites on the soft tissues of the body. Scars and welts may reveal incidents of previous injury.
4. Absence of a satisfactory explanation for the injuries. Also, discrepancy between the parent's description of the child's behavior and direct observations of the child.

Eye disease associated with the battered child syndrome has only very recently been discussed in some detail in the medical literature (Friendly, 1971; Mushin, 1970, 1971; Jensen, 1971; Harcourt, 1971). Perhaps this is one reason that professionals concerned with visually handicapped and blind children are so unaware of the great significance child abuse may have for their work.

It has been estimated that ten percent (Holter & Friedman, 1968) to 15 percent (Kempe, 1969) of children seen in hospital emergency rooms are abused children. Both Friendly (1971) and Jensen (1971) found eye disorders present in 40 percent of their hospital samples of battered children. Not all of these children, of course, become blind or sustain permanently impaired vision, since some eyes may heal without significant vision loss.

Eye disorders due to battering vary widely. The following are some of those described in the literature:

1. Retinal hemorrhage is the single most common eye disorder found in abused children and is often associated with intracranial hemorrhage, such as

Medical Conditions Related to Abuse

Bone injuries

Subdural hematoma

Eye disease and disorders

Number of children involved

Retinal hemorrhage

subdural hematoma (Friendly, 1971; Jensen, 1971; Mushin, 1971; Harcourt, 1971). Some minor retinal hemorrhages clear without permanently affecting vision. More severe hemorrhages may break into the vitreous and/or cause permanent loss of sight through retinal or macular scarring.

2. Detached retina. As considerable force is required to detach the retina of an infant, battered child syndrome should be considered in this diagnosis (Friendly, 1971; Keffney, 1964).

3. Brain or nerve damage due to severe head injury may result in cortical blindness or optic atrophy, as well as mental retardation, cerebral palsy, seizures, etc. (Harcourt, 1971).

4. Direct trauma to the eye may result in a variety of disorders (Friendly, 1971; Jensen, 1971; Mushin, 1970, 1971), including: a) bruises or cuts in or near the eye; b) subconjunctival hemorrhages; c) dislocated lenses; d) traumatic cataracts; e) hemorrhages inside the eye (intraocular hemorrhages, including hyphemas); and f) retinal damage with or without retinal detachment.

Parents of battered children often use different hospitals, clinics, and doctors to avoid detection. A number of states have established central registries to aid in the identification of repeated abuse to the same child or to children of the same family. Many states and communities, however, have no effective registry and progress in this regard is needed (De Francis, 1970).

☐ When a "suspected" battered child has been identified, what is the most helpful response of an agency or a school program for visually handicapped or blind children? It is particularly important that the school, the teacher, or the agency for the visually handicapped not withdraw services. Although the workers may feel that they are not sufficiently trained to handle this severe problem, withdrawing services is an easy but dangerous way out. Parents who batter children are very unsure of themselves and are more likely to abuse their child when they themselves feel deserted (Devoren, 1968). Conversely, they are less likely to batter when their own needs are being met. Therefore, the agency or school should not withdraw and wait for child welfare, the court, or the hospital social worker to take over, but should keep services constant or even increase the concern shown to the parents. Occasionally, the school or agency for the visually handicapped may even be in a preferred situation to establish rapport with the family, primarily because it is generally not in an accusatory or judgmental position. A good approach, then, even though the agency or school may not be dealing directly with the battering problem, is to put as much time and effort into the family as possible, and to offer the parents immediate, consistent, and continuing emotional support. An accepting, non-judgmental attitude is essential. It is preferable to assign a relaxed and competent worker to the family, for the parents are often so uncertain of themselves that they find it hard to deal with a new, insecure worker (Davoren, 1968). The worker can then be alert to personality traits, parental attitudes, or other indications that this child has been or is currently in danger.

The following items from a questionnaire used at the University of Colorado School of Medicine for early case-finding may be helpful (Pollock, 1968):

1. Does your child cry a lot? How do you manage your child's crying? How

Detached retina

Direct trauma

Avoiding detection

Response of Agency or School

Emotional support for the parents

Questions to ask

do you feel inside when the baby cries? (Significant answers relate to anxiety and anger or feelings of despair.)

2. Does it upset you when you are left alone? What do you do when your spouse fails to listen to you? Have you ever been afraid to be alone with your baby? (During stressful periods battering parents express many fears of being alone.)

3. Does it make you anxious to have someone watch you feed your baby? Do you ever get the feeling that others are critical of how you take care of the baby? (These questions reveal the amount of pressure these people have felt all their lives to respond to someone else's needs.)

4. When do you feel children are old enough to understand what is expected of them? How well do you feel your children understand you? (These questions reveal how the parents may be turning to the child for satisfaction of their own needs.)

☐ In working with the family, the focus should be on the feelings and needs of the parent, even to the point of ignoring the child. With this approach, the parent need not compete with the child for the worker's attention. There is no way to protect the child after the worker leaves, thus it is better to fill the parent's needs so that he, in turn, may relate more warmly to the child (Steel & Pollock, 1968; Devoren, 1968).

Consistency in keeping appointments and promises is important in any work with families, but it is doubly important here where any broken appointment may be viewed as a rejection. The client may break many appointments in testing the relationship—but the worker must not.

The worker assigned to the child should communicate with other agencies, schools, hospitals, or doctors who may be serving the family. The importance of a multi-disciplinary approach to successful treatment has been emphasized by the Colorado project (Steel & Pollock, 1968). Though few communities have a well-developed team-treatment program, close communication and mutual support can and should be developed in any community among the professional people serving a family suspected of child abuse. The team may include a pediatrician, ophthalmologist, psychiatrist, social worker, teacher, public health nurse, etc.

☐ When a worker feels that the child is truly in a dangerous situation, he can be very helpful in actively supporting members of the medical profession and/or child protective agencies in requesting court action. In every state, doctors are protected from legal action when they report a suspected battered child "in good faith," and in many states other professionals are protected as well. Reporting is required in all but four states (De Francis, 1970). Often doctors are reluctant to make a formal report which would be damaging to the family and child should it be unwarranted (Elmer, 1966; Wasserman, 1967). The support of another worker who has social information may help clarify the situation so that a more responsible decision may be made.

The exact procedure of reporting varies from state to state. In Washington, D.C., the formal report is made by a member of the medical profession to the police. Frequently the hospital may request an emergency "holding order" from the court allowing the hospital to retain the child, either in the hospital or in

Focus on Parent's Feelings and Needs

Multidisciplinary approach

Legal Procedures

Court-ordered removal

temporary care, pending investigation. A police officer and court social worker are assigned to make an investigation which, if the evidence is sufficient, will result in a court hearing.

A child may not always be removed from an unsafe home by the court. The outcome of the hearing is dependent on available evidence, willingness of doctors or other witnesses to testify, thoroughness of investigation, skill of lawyers, and the disposition of the particular judge involved. The child may be removed from the family, returned to the family under certain conditions (such as supervision of the home), or returned to the family with no conditions stipulated. It has been emphasized that the child should always have a court-appointed lawyer to represent his best interests (Kempe, 1969).

We would label six children on our caseload as "suspected" battered children. The situation of only one child has actually been brought to court. The other five situations were either formally reported and briefly investigated or informally referred to child protective services. To our knowledge, not one of these five cases has terminated in a court hearing. The child therefore has remained in the home with 1) a strong possibility that abuse has caused his injury; 2) no resolution as to whether the abuse is real; 3) no clear indication as to who may be the abuser; and 4) an existing possibility that the child may suffer further injury. The family has often had little or no follow-up from overloaded community protective services and becomes, at a later date, the concern of our agency.

□ The following are a few of our experiences which, though not dramatic, do indicate ways in which a program for the visually handicapped may serve a battered child. Due to the unresolved nature of the child's situation upon referral to our agency we have in very few instances dealt directly and openly with the subject of battering. Rather, we have worked with the concerns and problems of the parents as they have presented them to us. We have also gently guided many interviews to areas of our concern, such as to the problems of discipline or parent-child interaction. Two mothers brought up the subject of battering themselves, but only after several months of building a relationship with our staff. In one situation, however, in which battering was under active discussion while we were serving the child, we perhaps would have been more successful had we dealt openly with the subject, rather than leaving this role to the hospital social worker alone.

One young couple gained much from parent meetings. Three of the mothers, however, could not bring themselves to come to mothers' meetings which our more emotionally healthy mothers often enjoy a great deal. Two of the mothers would not come to the Lighthouse, so that our contacts were entirely in the home. One mother insisted that I visit her in my own car in order that the neighbors would not know that a worker was seeing her.

In one family, the grandmother was the only person available to our staff; both parents worked and the grandmother brought the child for tutoring. She attended a parent meeting at which the conversation was purposefully directed to discipline. Here she expressed concern over the very severe discipline imposed on the little girl. This was our opportunity to offer her a series of

Outcome of hearings

Danger of child's remaining in the home

Further Examples

Parent meetings

Grandmother was helped to intervene

private talks, based on her own concern. Eventually, we think she helped the parents to relax the treatment of the child. The child came to the Lighthouse with fewer bumps and bruises, and started to misbehave, which is said to be one indication of progress (Devoren, 1968).

A two-year-old child was treated at a hospital for injuries probably caused by physical abuse and released to the home. A mature and capable social worker on our staff visited the home of the child weekly for nearly a year, and supplemented her visits with phone calls. She played with the children and talked with the parents. She was the only community worker consistently welcomed into the home and, when she retired from our agency, the relationship was never fully transferred to the next worker. However, we have seen no evidence of further battering.

□ The services of our agency are not presented as a model, for the staff is still gaining in knowledge and skill. But it should be emphasized that agencies and schools serving visually handicapped and blind children, whether located in the cities or the suburbs, carry a very strong responsibility to be aware of the problem of child abuse. Think about the children served by your agency or school. Could any of them be battered? It is tremendously important to obtain medical releases for every child, and to screen medical reports for possible battered-child information. Do not expect direct, clear information, for the battering may be only "suspected" and there may be other possible medical explanations. Only one physician has ever indicated directly to us the presence of a suspected "battered child syndrome." Any suspicion of a battered child syndrome, however, is a clue to offer the family all the help possible, using a non-judgmental attitude. This may be under the guise of bringing the child in for tutoring or for a recreation program, with a social worker available to the parent at the same time, home calls, or some other plan. Early concern shown to the parents, plus cooperation with community medical facilities and social services, may save one child from further physical and emotional harm.

The author would like to thank David S. Friendly, M.D., program coordinator, Department of Ophthalmology, Children's Hospital, Washington, D. C., for his encouragement and assistance in the preparation of this article and, in particular, for his detailed review of the section concerning medical conditions related to child abuse.

Worker-family relationship

The Agency's or School's Responsibility

Acknowledgment

Bibliography

- Boisvert, M. J. The battered child syndrome. *Social Casework*, 1972, **53**, 475-480.
- Davoren, E. The role of the social worker. In R. E. Helfer & C. H. Kempe (Eds.), *The battered child*. Chicago: University of Chicago Press, 1968.
- De Francis, V. *Child abuse legislation in the 1970's*. Denver: Children's Division, American Humane Association, 1970.
- Delsordo, J. P. Protective casework for abused children. *Children*, 1963, **10**, 213-218.
- Elmer, E. Identification of abused children. *Children*, 1963, **10**, 180-184.
- Elmer, E. Hazards in determining child abuse. *Child Welfare*, 1966, **45**, 28-33.
- Friendly, D. S. Ocular manifestations of physical child abuse. *Transactions, Academy of Ophthalmology and Otolaryngology*, 1971, **75**, 318-332.

- Gil, D. G. Incidence of child abuse and demographic characteristics of persons involved. In R. E. Helfer & C. H. Kempe (Eds.), *The battered child*. Chicago: University of Chicago Press, 1968.
- Gil, D. G. Physical abuse of children: Findings and implications of a nationwide survey. *Pediatrics*, 1969, **44**, 857-864.
- Harcourt, B., & Hopkins, D. Ophthalmic manifestations of the battered baby syndrome. *British Medical Journal*, 1971, **3**, 398-401.
- Holter, J. C., & Freedman, S. B. Child abuse: Early case findings in the emergency department. *Pediatrics*, 1968, **42**, 128-138.
- Jensen, A. D., Smith, R. E., & Olson, M. I. Ocular clues to child abuse. *Journal of Pediatric Ophthalmology*, 1971, **8**, 270-272.
- Kiffney, G. J., Jr. The eye of the "battered child." *Archives of Ophthalmology*, 1964, **72**, 231-233.
- Kempe, C. H. The battered child and the hospital. *Hospital Practice*, 1969, **4**, 44-57.
- Kempe, C. H., & Helfer, R. E. (Eds.) *Helping the battered child and his family*. Philadelphia: Lippincott, 1972.
- Kempe, C. H., Silverman, F. N., Steele, B. F., Droegemueller, W., & Silver, H. K. The battered child syndrome. *Journal of the American Medical Association*, 1962, **181**, 17-24.
- Mushin, A. S. Ocular damage in the battered baby syndrome. *British Medical Journal*, 1971, **3**, 402-404.
- Mushin, A. S., & Morgan, G. Ocular injury in the battered baby syndrome. *British Journal of Ophthalmology*, 1971, **55**, 343-347.
- Pollock, C. B. Early case finding as a means of prevention of child abuse. In R. E. Helfer & C. H. Kempe (Eds.), *The battered child*. Chicago: University of Chicago Press, 1968.
- Steel, B. F., & Pollock, C. B. A psychiatric study of parents who abuse infants and small children. In R. E. Helfer & C. H. Kempe (Eds.), *The battered child*. Chicago: University of Chicago Press, 1968.
- Wasserman, S. The abused parent of the abused child. *Children*, 1967, **14**, 175-179.
- Young, L. R. An interim report on an experimental program of protective services. *Child Welfare*, 1966, **45**, 373-382.
-

A Reminder

Readers are reminded that the *New Outlook for the Blind* is not published during the months of July and August. Publication will be resumed with the September 1973 issue.

Counseling Families of Severely Visually Handicapped Children

ABSTRACT: Professional counseling can benefit both the severely visually handicapped child and his family. Initially, counseling may be useful to family members as they deal with their immediate reactions to the diagnosis and begin to develop realistic expectations for their handicapped child. When involved, the professional person may continue to provide an essential service. As the severely visually handicapped child faces each developmental task, the route he takes to achievement differs greatly from that used by the sighted child; hence, the uniqueness of the needs of the severely visually handicapped child. This uniqueness, how to deal with it, and what problems arise when it goes unrecognized, are all potential areas in which the professional person may be involved. In addition to these direct services, the professional person may serve as consultant to community agencies willing to work with these children. Unfortunately, persons prepared to meet the needs described are seldom available to the severely visually handicapped child and his family.

There are two primary reasons why professionals working with visually handicapped children and their families must be concerned with providing counseling for the family on an on-going basis: the child himself and the other family members, particularly the parents. This discussion is an attempt to illustrate how counseling can be of benefit to the parents and to the visually handicapped child; it is based on experiences with young congenitally blind or severely visually handicapped children and their families at the Birth Defects Clinic of the University of Colorado Medical Center.

□ A severe visual impairment may be discovered shortly after birth, but perhaps not until some months later. At whatever point the family becomes aware of the impairment, professional counseling should be available to them. Initially their needs are the same as those of parents of children with other types of impairments. Their reactions may include shock, grief, anger, guilt, and a searching for reasons (Cohen, 1962; Kozier, 1962; Olshansky, 1962). Warnick (1969) discusses the possibility of another reaction, that of hope. She bases this on the belief that expansion of services makes realistic planning possible, thus bringing a degree of hope. Her conclusion is that this feeling of hope may even replace "Chronic Sorrow." Whatever their individual reactions, parents are faced with the difficult tasks of dealing with these reactions, and making adjustments in their daily routine that will affect the total family unit in order to meet the new demands placed on them.

These tasks are frequently complicated by the parents' lack of knowledge and experience with severely visually handicapped people. As a result, they have no conceptual background on which to base their hopes or to control their fears. That is, if one's only experience with visually handicapped persons is to have seen a blind beggar or to have heard tales of a "blind genius" (common

HELEN E. FROYD, M.S.S.S.

Mrs. Froyd is a clinical social worker with the Birth Defects Clinic, University of Colorado Medical Center, Denver.

Parents' Reactions to Child

Stereotypical thinking

cultural concepts of blindness), there is no reality-oriented basis on which to build realistic expectations for the blind or severely visually handicapped child.

□ Additional reality factors serve to complicate the picture and make the task of the parents even more difficult. When the diagnosis of visual impairment or blindness is initially made, it is not uncommon that the amount of vision, if any, that the child has or will have cannot be determined. For example, one child born with familial congenital cataracts had decreasing vision until surgery was possible at one year of age. Initial surgery was followed by additional surgery on two other occasions. When the child was 20 months old, he began wearing glasses. He continues to have extremely limited vision, but the amount of useful vision is quite different than it was at birth. In another child, who had congenital glaucoma, the progression of the disease followed a different course. In spite of ten surgical procedures in the first 18 months of life, he has decreasing vision and faces total blindness.

This period of uncertainty makes it difficult, if not impossible, for the parents to grieve since they are not sure for what they are grieving or to accept since they are not sure what they are accepting. For example, a father whose son had congenital cataracts was quite rejecting of him; he seldom played with him, made unrealistic demands of him, and spoke of him as "hopeless." Following cataract surgery the child made rapid strides in his development and both parents felt his vision had greatly improved. The father's relationship with his son changed markedly at this time; he played appropriately with him, helped with his care, and spoke highly of his accomplishments. However, when the child regressed somewhat during a prolonged period of illness, the father reverted to his former attitude.

Another complicating factor is that a visual handicap may well be accompanied by one or more additional handicapping conditions. Based on a 1968 survey done by the Research Department, American Foundation for the Blind, it was estimated that there are 15,000 multiply handicapped blind children in this country (Graham, 1970). In our clinic, almost half of the visually handicapped children seen in a three-year period had one or more additional handicaps. It becomes apparent that the aspect of medical care for the child, either in direct relationship to the visual handicap or to an accompanying handicap may also be a part of the total picture a family must face at this time. Briefly, then, the birth of a severely visually handicapped child presents the family with what is potentially the most difficult psychological task they may ever have to face; in addition, while struggling with their emotions and feelings, they are also facing new demands on their time and energies. With this in mind, let us consider the blind or severely visually handicapped child.

□ From the moment of birth each child needs, among other things, acceptance, love, and an environment which enhances and encourages growth. A home in which the adults are struggling with the problems described above does not seem the most likely place to find these things. At precisely the time when the parents may feel the need to withdraw and concentrate on their own needs, they are called upon to give—and not just the usual "tender loving care" that each child needs, but giving that requires initiative and imagination in reach-

A Period of Uncertainty

Confusing situation

Additional handicaps

The Child's Needs

ing the child. For example, the response of the young visually handicapped child to the sounds of someone entering the room may be quite different from that of the sighted child. The sighted child turns toward these sounds and soon learns to stretch out his arms in expectation of being picked up. In contrast the visually handicapped child may cease his babbling and kicking when someone enters the room and remain perfectly still, only to resume his former activity when left alone again. This is a response which parents frequently interpret as rejection or as an indication that the child is happiest when left alone. Actually the child is attending to or responding to auditory cues. Unfortunately this may discourage the parents from interacting with the child when in fact they need to be more aggressive in establishing a relationship with him.

During the first year of life two additional exciting, yet potentially dangerous, developments occur; these are the beginnings of speech and the discovery of the body. They are exciting because they are so important, but dangerous because for the blind child they can become solely a means of self-stimulation rather than ways of reaching out and communicating. The necessity and importance of the development of speech and language for the blind or severely visually handicapped child is obvious.

□ Words and sounds must, from the very beginning, be presented in a thoughtful and meaningful way. A constant barrage of noise and meaningless words can be damaging, as can long periods of silence. Those nurturing the child must learn to use their voice meaningfully, varying their inflection and volume and the distance from which they speak to the child. Words must be provided as names for objects and descriptions for actions. The beginnings of language occur in the blind or severely visually handicapped child at the same age level as in a sighted child; however, because this child's sources of stimulation are limited, sounds and then words become a source of self-stimulation. If language is to progress beyond this to become a tool for reaching out to the world around him, the child must have objects to touch and identify. It is at this point that a delay may occur because identifying or naming objects, the next step in language development, depends on his being in contact with innumerable objects and being in many places—in short, on being mobile. Mobility, however, comes slowly to the blind or severely visually handicapped child. A comparison of the development of the sighted and blind or severely visually handicapped child serves to illustrate this.

The sighted child becomes "touch hungry" between three and four months and is stimulated by that which he can reach. The blind or severely visually handicapped child develops the motor pattern for reaching between the fifth and sixth month, but any contact he makes with objects is accidental. However, shortly after this pattern has developed, a random searching for objects begins (Fraiberg, 1968). Reaching is the precursor to creeping. Although the baby may achieve "postural readiness" for creeping (the ability to support himself on hands and knees) between six and eight months, some time may elapse before he actually moves forward. Fraiberg associates this probable delay and subsequent development as being linked to the baby's learning to "reach

A critical period

Beginnings of Speech

"Touch hungry"

on sound cue." That is, when the baby associates a sound with an object, reaches for and grasps it, then he is ready to crawl. This is the point at which the child learns to respond to auditory cues in much the same manner as a sighted child of five months responds to visual cues—with the difference that the blind child arrives at this point of development by a more difficult route somewhere between six and 12 months of age. It can easily be seen, then, that there may be a delay in the development of speech until the baby becomes mobile; mobility may be delayed awaiting the development of prehension abilities. Prior to the time when these abilities are integrated (thus making creeping possible), it is essential that the baby be provided with experiences designed to prevent deviation in the development of speech and bodily movement. These are but a few of the potential areas in which developmental deviations may occur in the very early years of the child's life.

□ Let us consider now some of the situations I have seen while working in the clinic. Early in my experience I worked with a family composed of a father, mother, maternal grandmother, first son—born with anophthalmia—and now a new baby boy. The problems in this family were many. The mother had been depressed since the birth of her first son and there had been no positive relationship established between the child and any of the adults in the home. The child, Tim, at age 2½ years spent most of his time sitting wherever placed, banging a toy or, more usually, sitting with his right thumb in his mouth and batting his fingers with his left hand. One afternoon Tim, his mother, and I were sitting on the floor introducing Tim to a new toy. Tim had no interest in being disturbed and was vocally making this quite clear. Suddenly his grandmother appeared, quickly picked Tim up, and in German scolded the two of us who were still sitting on the floor. She took Tim with her and held him in her lap while he resumed his thumb-sucking and finger-batting. A rough translation of the grandmother's remark is something like "You must not make him do that; he is happiest alone."

Somewhat later in my contact with this family, the mother was able to take Tim for a physical therapy evaluation and then bi-weekly sessions in physical therapy. Between sessions there were exercises to be done at home. More memorable than the grandmother's scolding was my first visit in that home after physical therapy sessions had begun. We were sitting on the floor again—the mother, father, Tim, and I. The three of them were demonstrating how they did Tim's exercises, the mother and father joyful about this new development and Tim tolerating the attention fairly well.

□ In one of the families we have followed there are four children, two of whom are blind. In an effort to help the mother with the children and to broaden their experiences, an aunt volunteered to spend Saturdays with one of the blind children, Mike. She and Mike played in the park, visited department stores, and he began learning to order and pay for their hamburgers at lunchtime. A problem arose, however, when the aunt was unable to come on Saturday. This is a family without a phone, so frequently some days would pass before they knew why the aunt did not appear. The mother tried to explain to Mike that "things come up" and that his aunt would have come if

Auditory cues

Experiences With Families

Interference

A new involvement

Magical Thinking

she could. Mike was not able to understand that something could prevent her coming and each time she missed a Saturday it was as difficult for him as the first one. Some conversations with Mike and his mother revealed that he knew nothing about his aunt except that she spent Saturdays with him. For Mike, she had no existence except on Saturday. Magical thinking and confused concepts related to the permanence of objects persist a very long time in children whose environment does not provide auditory information in the absence of visual information. Mike's mother saw the problem as his needing to learn how to handle disappointment. Perhaps, but a large part of learning to handle disappointments was, for Mike, a need for more information—where did his aunt live, did she live with someone, what kind of experiences did she have during the week, and, as soon as available, specific information as to why she hadn't come on Saturday, etc.

Just as magical thinking and confusion in regard to the permanence of objects persist, so can the blind child's difficulty in the areas of adaptation and self-assertion. Glen, a very dependent blind 12-year-old boy, has been in school for six years. His school experience has primarily been in a protective one-to-one situation. Recently he has been expected to move from class to class and did fairly well until faced with a need to make a decision. Returning from math class he told his teacher he needed to go to the rest room. She gave him permission, but asked him to return a brailier to the school office on the way. He did so in the order she requested; unfortunately, in fulfilling her request, he did not get to the bathroom soon enough. His inability to assert himself to meet his own needs or to make decisions in terms of priorities was particularly obvious that day. A sighted child has some control over his environment and inter-personal relationships because vision makes possible both a testing and imitation of adaptive actions and independent exploration of the environment. To this extent his behavior development is intrinsically motivated and not guided from without (McGuire & Meyers, 1971). In contrast, the blind child's development depends to a much greater extent upon guidance from without. This guidance comes from parents and teachers who frequently are anxious, protective, and actively supervising. The result is that the child does not learn to control his own time or to function without guidance.

□ The diagnosis of blindness or severe visual handicap in infancy is more than a medical diagnosis. The nature of congenital blindness or severe visual handicap is such that it influences every factor of the child's development. The change from babbling and sound imitation to communication, the first response to sound by reaching, the first step taken—all are bound together in such a way as to create a task unique to the congenitally blind or severely visually handicapped infant. This child faces the same developmental tasks as the sighted child; however, the route he will take to achieve them is necessarily much different. Likewise, as this child faces the developmental tasks of each succeeding stage, his resolution of them will be influenced by the particular variations inherent in them due to his visual handicap and on the success with which the previous tasks have been met. The child faces new crises in each developmental stage. This factor means that he also is a potential crisis-inducing

Adaptation and self-assertion

The Developmental Tasks

element in the family. That is, his needs (physical, emotional, or cognitive) may be so great or so demanding or appear so overwhelming when combined with the other elements of the current family situation that a crisis arises affecting the entire family.

□ To summarize briefly, the family with a handicapped child has many special problems to face. For the family of a blind or severely visually handicapped child there are problems unique to them because of the cultural concepts of blindness, the frequent complications of additional impairments, and the problems inherent in each developmental stage because of the absence or impairment of vision.

Counseling services for these families can do much to replace feelings of rejection and despair with hope, as mentioned above. The counselor for a family with a blind or severely visually handicapped child must be aware of the unique needs of this child as well as those common to all children. His task is to help the family discover how they can best care for this child, to provide information concerning ways to meet his needs for supplementary stimulation, where to find people and agencies who are prepared to help them and their child, and to provide consultation to others in the community who are also working with the family and child. The fact is, however, that all too frequently counseling is not available. The medical personnel who are the first to have contact with the family frequently do not recognize the need or do not know where the family can obtain adequate counseling. Social agencies set up to serve blind persons have as their primary charge the provision of rehabilitative services aimed at preparation for employment. Professionals in family and children's agencies, mental health clinics, etc., are not familiar with the particular needs and unique problems of the young blind or severely visually handicapped child and his family. The one positive development in this area is that some of the public schools are extending their area of concern to the pre-school child and providing services to children from the age of three; their goal is to have the child ready for school when he reaches school age. This service has included instruction in the development of self-help skills at home and consultation to programs such as Headstart; such programs can include the blind or severely visually handicapped child when such consultation has been available.

This still leaves, however, the period from birth to three years, a period when the child must surmount many developmental difficulties if he is to be ready to develop self-help skills and then go on to formal education without handicaps in addition to his visual one. The task of the parents and child is enormous. Is it not our responsibility to see that help is available should they choose to use it?

Cohen, P. C. The impact of the handicapped child on the family. *Social Casework*, 1962, **43**, 137-142.

Elonen, A. S., & Cain, A. C. Diagnostic evaluation and treatment of deviant blind children. *American Journal of Orthopsychiatry*, 1964, **34**, 625-633.

Elonen, A. S., & Zwarensteijn, S. B. Appraisal of developmental lag in certain blind children. *Journal of Pediatrics*, 1964, **65**, 599-610.

Summary

The role of the counselor

Counseling seldom available

Still neglected in the earliest years

Bibliography

- Fraiberg, S. Parallel and divergent patterns in blind and sighted infants. *Psychoanalytic Study of the Child*, 1968, **23**, 264-300.
- Graham, M. D. *Multiply impaired blind children: A national problem*. New York: American Foundation for the Blind, 1970.
- Kozier, A. Casework with parents of blind children. *Social Casework*, 1962, **43**, 15-22.
- McGuire, L. L., & Meyers, C. E. Early personality in the congenitally blind child. *New Outlook for the Blind*, 1971, **65**, 137-143.
- Olshansky, S. Chronic sorrow: A response to having a mentally defective child. *Social Casework*, 1962, **43**, 191-194.
- Sandler, A. Aspects of passivity and ego development in the blind infant. *Psychoanalytic Study of the Child*, 1963, **18**, 343-359.
- Warnick, L. The effect upon a family of a child with a handicap. *New Outlook for the Blind*, 1969, **63**, 299-304.
- Wills, D. M. Vulnerable periods in the early development of blind children. *Psychoanalytic Study of the Child*, 1970, **25**, 461-470.

AFB Appoints Sensory Aids Development Director

Ira Kaplan, manager of the Aids and Appliances Division of the American Foundation for the Blind, has been appointed to a new AFB position, director of Sensory Aids Development. The new position is the result of a two-year study by the Foundation to develop a new and concentrated program in the identification, evaluation, and production of new sensory aids.

□ The program will, for the moment, according to M. Robert Barnett, executive director of the Foundation, have three main segments:

Three-Pronged Program

1. Market research to develop information and market data on the number of visually handicapped persons who might need or want new sensory aids and the potential for sale or distribution of such aids;

2. Market development, which will assist developers and manufacturers of sensory aids with problems in securing funding, manufacturing, market development, advertising, sales, and services; and

3. Product information and distribution, which will serve as a source of information on commercially available sensory aids.

□ Mr. Kaplan has been director of the Aids and Appliances Division of the Foundation since 1968, previously having been employed in various commercial positions, largely concerned with the management of mail order merchandising. Until his successor is appointed, he will continue to supervise the aids and appliances program, along with beginning to work out the specifics of the new sensory aids program in conjunction with Louis H. Goldish, of Technical Marketing Associates, Concord, Massachusetts, who has served as consultant and planner of the new program for the last two years.

Ira Kaplan

The Small Planning Committee: A Tool for Meeting Human Needs

ABSTRACT: An often overlooked aspect of services to older blind persons, and others as well, is satisfying their psychogenic needs: recognition, usefulness, new experiences, companionship, sense of belonging, self-esteem, etc. The small planning committee is a tool through which these needs are met. The membership of the larger group is divided into a number of small groups which each take responsibility for planning and implementing the program of one of the club's monthly meetings, rather than having staff and volunteers do everything for them. Guidelines and suggestions are provided for assigning members to groups, conducting planning meetings (chaired by a volunteer), the kinds of problems with which the group can deal, and the implementation by them of their solutions. The many advantages accruing from the use of this approach are also discussed.

Much has been written in recent years about appropriate services to the aged being provided by agencies for the blind. Along with the traditional rehabilitation offerings (communications, mobility, activities of daily living, and vocational rehabilitation), recreation looms as one of the most significant. Recreation services can teach skills and develop confidence needed for resumption of adult social roles and participation in community activities. Where community participation is not possible, recreation programs in agencies for the blind can create new social roles and thus help to meet the basic human needs of the individual.

□ Human needs can be divided into two main groupings: physiological needs (food, shelter, clothing, and maintenance of bodily functions or health) and psychogenic needs (recognition, usefulness, new experiences, companionship, sense of belonging, self-esteem). (An excellent discussion of human needs and of the behavior of blind individuals who require the services of specialized recreation programs can be found in the introductory chapters of *Recreation for Blind Adults*, by Maurice Case [Springfield, Illinois: Charles C Thomas, 1966].) The onset of blindness brings with it an interruption of the accustomed ways of meeting these needs. After a period of rehabilitation and restoration of skills the normal blind person can resume his various adult roles and through them meet his various human needs. It is, however, one of the general problems of our society that as a person becomes older his social roles change and diminish, making it more and more difficult to accomplish this.

All too often in established agency recreation programs, the psychogenic needs are not met. Well-meaning volunteers and staff who do everything for the blind person merely reinforce his negative self-image as someone useless and worthless who must be thankful for every morsel of attention. It was to counteract this that the "small planning committee" approach was devised.

WALTER B. BONINGER

Mr. Boninger is associate executive director, Community Services, Cleveland Society for the Blind.

Human Needs

Needs are often not met

□ A social club of blind adults, a group of sighted volunteers, and a group worker from an agency for the blind—these are the ingredients of this simple project. The club meets one afternoon a month for refreshments, socialization, a short business meeting, and program. The volunteers also meet once a month to plan for the club meeting. Beyond this, the details of the two groups are not important. It does not really matter whether the club members are poor or rich, black or white, where they live and with whom. All are older adults with the typical multiplicity of economic, social, and physical problems that would make meaningful integration into community programs difficult. All come to the club by referral from the agency caseworker; all have had the usual array of services that agencies for the blind provide for older persons. A few have been blind all their lives, but the vast majority have lost their sight in recent years. The volunteers, too, are traditional in their make up—on the average, a generation younger than the club members, and highly motivated to be of service to others.

A Social Club

In the beginning, a good many years ago, all planning and implementation for the club was done by the volunteers. They provided transportation to club meetings, planned programs, bought and served the refreshments, ran the club meeting, and made all the decisions involving the club. Everybody seemed to be happy. The volunteers were providing, one thought, badly needed services and the club members were grateful that these resourceful volunteers should choose to expend so much time to make them happy. Everyone was happy, it seemed, except the group worker from the agency. After all, should not the club members have a more active role in all of this? Were the human needs of club members really met by acceptance of such a passive role? Was all this “happiness” not due to a great underestimation of the real needs and capacities of club members?

Run by volunteers

□ After some years, club members were encouraged to elect their own officers. While the officers ostensibly conducted meetings, most decisions for the club were still made by the volunteers. Having officers allowed a few of the club members to share in some of the responsibilities, but the vast majority of members were still left out. So it went until about four years ago when the current worker suggested the idea that forms the basis for this paper. Why not divide the entire club into somewhat equal groups and together with one or two volunteers, make up a small planning committee? Each small committee could then be responsible for planning and implementing at least one meeting each year. In this way every member of the club, no matter how old, how feeble, how long removed from the mainstream of social interaction, how unaccustomed to participation, could, with proper structuring and motivation and in a relaxed atmosphere, be able to make a genuine contribution to the tasks of the planning committee. The details of the project as described here are obviously applicable to many different kinds of groups—regardless of size, frequency of meetings, or the extent of staff and volunteer support.

Small Planning Committees

There are many different ways of dividing a large group into small committees. Those that we have tried so far include: 1) by birthdays, making all those who have a birthday during the month responsible for planning that

Forming the committees

month's program (The advantage of a logical motivation for planning makes this a good way to get started. The main disadvantage is the uneven numbers in the various committees.) 2) alphabetically (This makes it easy to achieve a balanced number in each group.); 3) by residence (In a large city, this approach may reduce travel since groups are made up of members who live near each other.); 4) assignment by a volunteer or staff member (This provides for some quality control, assuring that each small committee has at least some capable persons on it.); 5) by club member choice (This assures that people who wish to work together are able to do so.). The method of dividing the group has been varied each year to avoid having the same small committees always working together.

In addition to dividing the club members, the volunteers have also been divided. One or, at the most, two volunteers participate in each small planning group. This assures transportation for club members and is an effective way of achieving a close and functioning working relationship between club members and volunteers. Participation by agency staff is optional. During the first year of the project the group worker attended every small committee meeting. Since then, staff attendance at these meetings has been very rare, with volunteers and club members following through on their own. The group worker does attend the monthly meeting of all the volunteers and uses this as a time for interpretation and guidance.

□ One of the essential ingredients in the success of this project has been that all planning committee meetings have been held in the homes of one of the club members. Meetings are not held in the homes of volunteers, nor at the agency, nor a half hour before the club meeting. *The committee meeting is a special event at the home of one of the members.* Plenty of time is allowed for the social as well as the business part of the meeting. All participants have a chance to get better acquainted with each other. When we go into the member's home, we see the real person—not just an old dependent blind woman who sits in a chair at a club meeting and says "thank you" when the cream is put into her coffee. We see pictures on mantels, interesting knick-knacks on end tables; we can ask about them and learn about the person. All of a sudden, we see a total human being. We see cleanliness and dirt, wealth and poverty, a full life or a misspent one. We see a real person with strengths and weaknesses like the rest of us, not just someone who is blind.

A second, but most important, reason for meeting at the home of a club member is the opportunity it affords that member to meet some basic human needs—usefulness, recognition, new experiences, etc. At the very first planning committee meeting four years ago, without a word being said by anyone, cookies were served with coffee. At the second meeting it was home-made apple cake (a delicious recipe that was much in demand). At the third meeting there was a complete meal with cocktails, wieners, and cherry strudel. It became immediately apparent that we had a case of "can you top this" and so we suggested that just some cake or cookies and coffee would be fine.

For the older blind person who has not entertained in his or her home for years (perhaps never), such a meeting has great significance. Conversations

Assigning volunteers

Meetings in Members' Homes

The host's contribution

Benefits to the host

with a daughter or friend have to be cut short: "Sorry, can't talk to you today—I'm busy!" The house has to be cleaned; food has to be prepared; the guests welcomed; compliments received on the house and the knick-knacks and the cookies. Once again the individual is useful and wanted and has something to contribute. The home of a volunteer might be more comfortable and the refreshments served more elegant, but our prime concern is to meet the needs of our clients. To have these meetings anywhere else is to miss out on one of the great values of this project.

This was most dramatically illustrated when one of the meetings took place at a nursing home. The patient, working with the nurse's aides, engineered some special refreshments. A couple of extra chairs were brought into the room and with some people sitting on beds, the patient beamed and smiled at this most exciting event. It was the first time ever that such a meeting had been conducted by a patient of the home.

□ The volunteers had been in the habit of setting up the entire club program in the spring for the following program year. Speakers and entertainers were lined up way in advance and all major details were planned ahead of time. At the time when the small committee project was introduced, the program had been planned out for the year. It was quickly pointed out, however, that there is more to a program than just the main speaker or entertainer. There are such matters as refreshments, decorations, door prizes, seating arrangements, special celebrations of holidays, etc. None of these had been determined and would provide ample opportunities for the small planning committees to make a contribution.

Even after four years of working with small committees, the volunteers still prefer to have a plan made out for the entire year. Instead of specific speakers and entertainers, however, just a program title is given. Instead of being done only by the volunteers, program planning for the year is a joint venture by everyone involved. Some of the program topics for last year were "Halloween," "Surprise Trip," "On Blindness," and "Election '72." Each of these topics, though pointing in a very specific direction, is open enough to allow the small planning committee much freedom in working out the details. We feel that such advance guidance done jointly by volunteers and club members is helpful to the small committee process. The question under discussion does not become a vague "What shall we do?" but rather a focused "How shall we do it?" It helps to direct the decision-making process into some specifics.

□ The key to the success of the small planning committee is that there be some genuine decisions to be made by the committee. If it is announced that the speakers have been engaged, the refreshments ordered, and everything else arranged, the committee might as well not meet at all. It is helpful if the volunteer in charge comes prepared with a list of decisions that need to be made. The following examples illustrate the kinds of questions to be decided:

1. The main program: Where shall we take our trip? How long? When should we leave? When should we return? What goes into a Halloween party? Who shall bring what? Who can tell a ghost story?

2. What seating arrangements should be followed? This is always a con-

Meeting in a nursing home

Long-Range Planning

Topics only—No details

Committee Decision-Making

Seating arrangement

troversial topic. Friends who see each other only once a month like to sit together. Why not allow them to sit where and with whom they want? Why force a change? Any change should not, of course, be forced and it need not be done every time anyway. It is fun for most people, however, to get acquainted with someone new and not to remain in a small clique all the time. While such cliquishness is found in any group of persons, blindness adds to the difficulty in getting acquainted with others. An occasional switch, therefore, can open up horizons and help to meet many human needs. Seating can be arranged by birthdays, by age, by state or country of origin, or at random through the matching of name tags. Some of these "gimmicks" may sound childish, and they can be, if foisted upon a group by condescending volunteers. But it can be great fun if entered upon in the right spirit.

Related to seating arrangements is the arrangement of tables. Rather than the traditional U-shaped arrangement, experience has shown the advantage of an open herringbone. With the U-shape, club members will usually all sit together in one section, with the volunteers in another. The open herringbone makes it easy to leave one or two spaces at each table for volunteers. Moreover, this arrangement facilitates interaction at each table and movement between tables.

3. Should we have name tags, table or wall decorations. If so, who should make them? Who should buy them?

4. What refreshments should we have? Who should bake? Who should buy and how much?

Refreshments

5. How should special holidays be celebrated? This could be done in addition to the main speaker or entertainer. For example, a member read a recorded book on Columbus and reported on its contents for an October meeting.

6. Should there be door prizes? What should they be? How should they be awarded? At one Thanksgiving meeting, the door prize (a pumpkin) was won by the person whose guess about the number of kernels on an ear of corn was the closest to that arrived at by a member who had counted them beforehand—this prize and method of awarding it being decided upon by the small committee.

Prizes

7. Who will introduce the main speaker? Who will thank him?

8. Who will lead the singing? What songs should be sung?

☐ Even though a chairman needs to come well prepared with an agenda and a list of decisions to be made, it is also important that he come to the meeting with "an empty head." It is only natural to be thinking about the answers to agenda questions and to have settled on some possible solutions. It is important, however, to hold back, and allow the members to come up with the answers whenever possible. For example, if the program is a Halloween party, don't start by saying, "What do you say we bob for apples and tell ghost stories?" Instead, ask, "Have any of you ever been to a Halloween party? What goes on there?" If the program is a surprise trip, don't suggest a trip to a television station, but ask, "Is there any place that you think the club would like to go?" It seems so obvious when written down like this, but it is seldom done this way in practice. Most often, volunteers or staff come with a plan all

Leading the Committee

made and the committee nods humbly in approval. But all this just defeats the purpose of meeting basic human needs through the small committee process.

Here are some more examples: The discussion is on food. One person suggests hot dogs and another hamburgers. A quiet member of the group is asked for his opinion and ventures that he is tired of hot dogs and would much prefer chicken. The committee wholeheartedly agrees and chicken it is. Next week at the club meeting, the leader says, "We owe a special round of thanks to Mr. R who suggested we have chicken. Aren't you all glad that we didn't have hot dogs and hamburgers again?" Simple? Childish? Maybe. But what has happened? A man for whose opinion no one had asked in years has been given an opportunity to express himself. His self-esteem rises because someone has thought that he had a good idea. He feels useful. He is given recognition, and perhaps participating in such planning was an entirely new experience for him. It gives him something to talk about, even to brag about.

Another example is an elderly woman who finds it difficult to talk and contributes little to verbal discussion. She is asked whether she could buy some special holiday napkins and fold them for placing on the table. She says she would be glad to. Maybe—we don't know—she bought them herself or perhaps she asked her sister to run out and get them. It doesn't matter. She brought them to the meeting and folded them neatly. Her contribution was acknowledged. She felt useful, was given recognition, and her self-image rose. The importance is not the size of a contribution, but the genuineness of it.

□ It is not easy for everyone to feel comfortable in this type of open-ended planning situation. For the sighted volunteer who is generally called upon to set the tone for these meetings, this may be an entirely new experience. Differences in age, in socio-economic status, and in general ability make it difficult for some people to enter into a genuine group discussion. Blindness may also be a factor, since some volunteers, who have come to a group with a strong desire to do for others, find it difficult to hold back and allow the process to develop. For example, when a suggestion is made by a club member, the volunteer should not just automatically accept it, but rather ask the other members of the committee for their opinion. Eliciting further suggestions and encouraging open discussion of all ideas is preferable to placing oneself in the position of judging the pros and cons and giving a purely personal opinion. Nevertheless, the volunteer should be able to present his own ideas to the group, especially when the members are having difficulty in coming to terms with the problem at hand. Ideas, presented in the form of questions, can often stimulate the members to consider new lines of thought and thus produce additional ideas and reactions. When an apparently unsuitable or unworkable suggestion is made, the volunteer need not feel obliged to reject it and thereby possibly dampen the spirit of the group. A better course is to help the group to analyze the suggestion fully. Specific questions about how the idea would need to be pursued will help everyone to recognize difficulties and hazards. On the other hand, a seemingly bad idea may turn out to be a very good one, because of resources among the club members of which the volunteer was not aware. Also, a rejected idea may include certain parts which can be salvaged

Involving the shy or reticent person

A task for everyone

Common Problems

Encouraging discussion

Unworkable suggestions

and used in some other context or with some other idea. Finally, although member involvement in planning is relatively easy to achieve, getting members to participate in the actual implementation is often difficult: the buying, the baking, the telephoning, the errand-running, the cutting, the making—all the things that it would be so much easier for the volunteer to do himself. In addition, the volunteer may feel that it is his job to do these things and that it would be an imposition to ask a club member. But the member, who wants to overcome his own feelings of inability, will more than likely readily accept the chance to help, while remaining willing to ask for the volunteer's assistance if it is needed. In other words, implementation should be a part of the planning process in the small committee, with decisions being made about how, singly or together, all the members of the group can do their share. At the main meeting, then, recognition can be given to everyone for their contribution.

□ One of the advantages of this approach is that it is so easy to measure the degree of success. To what extent have we created opportunities for every member to attain a sense of recognition, a feeling of being useful, a raising of self-esteem, and a sense of belonging and new experiences? For some members, those who are more capable and outgoing, meeting these needs will come much easier. For the withdrawn client and the multiply handicapped older person, finding ways of meeting their needs requires constant alertness and creativity by the volunteer. Even little things—like folding napkins or putting cookies on a plate—can be an important contribution for someone who has not been asked to contribute to anything for years. A telephone call between meetings asking for an opinion is to show that you care and that you feel the person has something to offer.

Over the years, club members have taken on, at one time or another, virtually every task that had heretofore been done exclusively by volunteers. In addition to the planning itself, club members have contacted speakers, introduced and thanked them, prepared refreshments and helped serve, etc. Club members became, in a very genuine way, partners with the volunteers in planning and implementing programs for the entire group. At first, the volunteers felt somewhat threatened by the idea that there might be nothing left for them to do. It took some interpretation and discussion at committee meetings to explain that our goal, both as social workers and rehabilitators, is to restore functioning to people; and that our greatest satisfaction ought to come from being able to stand back and watch our members do for themselves those things we had always done for them.

Over the years, a few refinements have been made. Membership of the small committee is announced at the beginning of the program year and a club member is appointed as co-chairman, together with a volunteer. This encourages members of the small committee to get on the phone and talk to each other in preparation for the actual meeting. In the beginning, there was a tendency to wait until just a couple of weeks before the main meeting to have a gathering of the small planning unit. Often, important decisions might not wait that long and there would then be little reason for the committee to meet

Implementation

Measuring Success

Self-reliance

Changes in the original plan

when it did. The volunteers have now been asked to hold their meetings sooner, so that participants can be involved all along the way.

□ The advantages of the small committee planning process are many. In the course of the program year, every club member and sighted volunteer participates at least once on a small committee. Even though the meetings and planning process are often dominated by the more capable members, it is quite easy to involve and draw into discussion and implementation even the most incapacitated and backward individual. Clearly etched in my mind is one 83-year-old gentleman who was asked whether he preferred an imaginary trip to Hawaii or to London. His eyes lit up and he spoke with much feeling that he liked the bikini'd hula girls in Hawaii. He was given recognition for his part in making the decision to go to Hawaii. He made better use than ever of his very limited vision when hula girls were, indeed, part of the program.

Another advantage is that members and volunteers get to know each other and relationships become far more genuine. Instead of all the giving being done by one group and all the taking by another, there develops a partnership in a common enterprise. In addition, there is increased activity between members at all levels. Previously, with the club meeting only once a month, there was no interaction between members and little contact except at meetings. With the advent of the small committee, members began calling each other on club business and with news about club members. Friendships developed and there was a whole new spirit of life in the club.

Altogether, programs have become less passive and have involved the total membership. Not only is the small committee involved, but all members of the club are drawn into participation during the various programs. Instead of sitting in one place from beginning to end, there is now far more physical movement at meetings. Club members are doing things which they had never thought possible before.

□ The content of the volunteer committee meeting has also changed. Where talk used to be about certain details—what refreshments should be served and who would pick up the decorations—now there are reports on the little committee meetings and the participation of club members. The volunteers are concerned about how to bring out the most in people and how to have effective committees. The worst fear of the volunteers—that there would be nothing for them to do—has not materialized. We are dealing with a client group that has so many disabilities and so few resources that much support from the volunteer committee is needed at all times.

There is, of course, more to the total club program than the small planning committee, such as the functioning of officers, the conduct of business meetings, and the relationship of volunteers and club members apart from the planning process. However, the entire morale of the club and the quality of the relationship between club member and volunteer or staff are determined by the small committee process.

The entire project seems so simple, so obvious, and so common-sense. Maybe it is, but it is not happening. In most social clubs, people are being waited

(Continued on page 271.)

Advantages

Improved relationships

Less passivity

Benefits for the Volunteers

Approach is readily transferrable

Curriculum Standards in the United States for Training Blind Persons in Computer Occupations

ABSTRACT: This paper summarizes more than a decade of experience in the United States in the area of training and employing blind persons in computer occupations. The curricula of specialized training facilities are reviewed. Training in specialized facilities is compared with similar training in integrated educational institutions. Advantages and disadvantages of each plan are outlined, and recommendations are made for continued progress in this area of rehabilitation for blind persons.

The education and employment of blind persons in computer centers in the United States has shown three distinct phases or periods in recent years. The first phase may be identified as the phase of the extraordinary individual. It has always existed; but before approximately 1962, it was the only phase evident in the American scene. The second phase may be identified as the phase of the specialized training facility. Until approximately 1969, it was the only strong alternative. The third phase is currently the most evident addition to the American scene. It may be identified as the phase of integrated training for blind persons within standard training environments. The present and future characteristics of this third phase of programmer education and employment for blind persons will be described in this paper. First, however, some comments will be made on each of the two earlier phases.

Throughout history and in all cultures, there have been remarkably talented individuals who have also been blind. Such persons have made lasting contributions in a wide range of human endeavors. The field of computing, relatively young as it is, has not been without its share of such individuals. In the United States, prior to 1962, a few such persons acquired competence in computer specialties; and many of those persons even today hold posts of prominence at leading universities and laboratories in our country. Similar achievements by men in other societies could certainly be cited.

It seems fair to say that such exceptional achievements comprise a phenomenon which is not readily related to the topic of the international conference in Moscow last year. It is not obvious, for instance, that we can learn how to train large numbers of moderately talented individuals by studying the spectacular accomplishments of a few giants. They serve, however, as a reminder that blindness need not be an insurmountable barrier to effective performance in computing, any more than it is in a long list of other specialties.

□ For a number of years prior to 1962, the application of technology toward the solution of some of the problems associated with blindness had steadily advanced in the United States. There had also arisen a very rapid expansion

CHARLES E. HALLENBECK, Ph.D.

Dr. Hallenbeck is associate professor of psychology, University of Kansas, Lawrence.

Three Phases

Before 1962

Seven Special Training Facilities

This article is based on a paper originally presented at an international conference on the education and employment of blind computer programmers hosted by the All-Russia Society for the Blind in Moscow, November 13-17, 1972.

of the use of digital computers for scientific and commercial applications and a consequent critical shortage of trained manpower, including programmers and operators of the rapidly multiplying machines. It was in the context of these two trends that pilot programs were initiated to provide training in computer skills for moderately talented blind individuals. The success of those early efforts inspired many others to begin similar programs. By 1969 this activity had resulted in the creation of seven training facilities. A 1969 conference of blind programmers and their employers, sponsored by the Association for Computing Machinery and held in Cleveland, Ohio, facilitated the establishment of an organization called VIDPI (an acronym for "Visually Impaired Data Processors International").

ACM and VIDPI

An examination of the curricula of those seven training programs indicates that their topics may be divided into three groups. The first group of topics appear to be these:

□ 1. The use and operation of "unit record equipment," such as card punches, tabulating, collating, and sorting equipment, etc.

Machine Operation

2. Logical organization of digital computers, including concepts of addressable memories, special and general purpose registers, input-output devices, the instruction sets of particular (usually simple) machines, the steps in the interpretation and execution of machine instructions, etc.

3. Operations in nondecimal number systems; those having bases of two, eight, and 16 are of special importance.

4. Machine language and symbolic code. The curricula of all facilities include some training, not always to the same depth, in absolute machine language and in symbolic or assembly language.

5. Operating systems and their control languages. The curricula of all facilities include a familiarization with at least one major software system for a large computer, including the conventions for defining jobs, activities within jobs, and the files used by an activity.

A second set of topics appears to relate less to the machine and its mathematical foundations and more to the applications for which computers are typically used. These topics include:

The uses of computers

1. Problem analysis and definition. The curricula of all facilities emphasize the logical analysis of a problem. Sometimes this analysis utilizes flow-charting methods, sometimes only natural language flow-outline methods.

2. Problem-oriented algebraic or algorithmic languages. Training is always provided in a high-level compiler language and usually in several such languages. Typically, a business-oriented language is chosen, and then a scientific-applications language or general-purpose language is learned. Emphasis on this type of programming is inversely related to the emphasis placed on assembly language techniques.

Specialized languages

3. Error detection and correction. In our culture, perhaps also in others, a program with an undesirable irregularity is said to have a "bug" in it. Therefore, "de-bugging" a program is an important skill emphasized in the curricula of all facilities. Some experts have advised that the most efficient use of programmer effort is obtained when the programmer assumes from the

start that his work will contain such "bugs," and he includes in his program provisions for their detection and extermination.

4. Documentation. All curricula stress the value of clear, concise program documentation. The programmer must produce not only a running program but the means by which the operations and uses of that program may be made known to persons unfamiliar with its coded statements. This aspect of training provides a close link between the student's training environment and his subsequent employment environment. In fact, good documentation prepared by students is thought to be the most helpful item in securing employment following successful training.

5. Program maintenance and minor modification. This topic is included in some curricula but, in the view of the author, is given insufficient emphasis in most. This is perhaps the most difficult task facing the blind programmer after his employment. The daily work of programmers is not filled with the writing of programs from conception to implementation, but with the patching and repairing of another man's product. Few programmers enjoy this latter task as much as the former, and few blind programmers are adequately prepared for this aspect of daily tasks.

□ The final set of topics includes ones most familiar to those in the field of work with blind persons. They are addressed directly to the problems stemming from the condition of blindness itself. They include:

1. Communication skills. The use of braille materials, including those produced directly by computer printers, is included in all curricula. While braille literacy is assumed prior to training in programming, nevertheless the codes and conventions important in programming are rarely already known to students. The use of audio tapes for note-taking is also stressed. Typing skills are important for the production of punched cards or computer direct input and also for simple typing for later use by sighted clerical personnel.

2. Mobility skills. While few curricula provide such training, all facilities agree on its importance as a step toward ultimate employment. A student with inadequate skills for independent mobility is expected to acquire such skills by means of standard rehabilitation services available to him.

3. Personal grooming. To possess and cultivate a pleasing personal appearance, while not taught directly in our facilities, is highly valued by them. The reader should not be surprised to learn that many blind persons in the United States, as among all other groups, place less value on this matter than do their teachers, their employers, and perhaps also their mothers. The emphasis exhibited by programs training blind persons in computer skills is undoubtedly related to the belief that personal attractiveness is an advantage in obtaining employment if not actually in fulfilling one's job requirements.

4. Preparation for employment interviews. Some programs include specific rehearsal for students in the difficult and worrisome matter of the employment interviews which will take place late in training or even following completion of training. One trainer, dismayed by an apparent passivity and timidity among students when faced with the prospect of finding employment, has characterized this preparation as "ferocity training." His philosophy is not

Documentation

Program maintenance

Daily Living Skills

Mobility

Practice interviews

widely shared. More typically, such preparation consists of a technique known to social scientists as "role playing" and serves a very valuable function.

5. Special sensory aids. Devices exist and are under development which contribute to specific solutions to problems faced by blind programmers. Most programs encourage the use of a simple mechanical device to examine the contents of a punched card by auditory or tactile means. More elaborate systems, such as braille-equipped, time-sharing terminals, direct translation reading aids, and television-like image enhancers for those with useful residual vision, are also available. Their present cost prohibits individual ownership in most cases, but their availability at some training centers constitutes a useful exposure to the use of such systems.

□ By approximately 1969, it was evident that yet another alternative had developed in computer training for blind persons. Standard training environments serving sighted individuals were more often accepting blind persons of moderate talent. Colleges and universities, as well as technical schools, were able to admit blind individuals and provide them with effective and rewarding training opportunities. This was facilitated by improvements in services to blind persons which had occurred during the preceding few years. Computer programs to permit braille output from unmodified line-at-a-time printers, ready availability of tape and braille reading materials, and a growing sense of community among blind persons already employed in computing were factors contributing to the success of the integrated phase of training. A recent inquiry made of the seven facilities so active in 1969 has revealed that two are still providing specialized training, two have abandoned their specialized training for blind persons, another has apparently not survived financially, and the remaining two failed to respond to my inquiry.

□ There are five key points of comparison by which similarities and differences between the specialized facility and the integrated plan may be delineated. They are:

Admission to training. There has been a tendency for admission standards to be quite low in the specialized training facility. Since most trainees have the financial support of public rehabilitation agencies, it has been difficult for many specialized facilities to turn away any applicant who brings with him such a guaranteed fee payment. In the integrated training method, however, admission criteria are applied more objectively by persons not so immediately concerned with the financial survival of the organization.

Placement of blind trainees. Neither the specialized facility nor the integrated training plan assures trainees of employment after training. In both cases, personnel of public agencies charged with assisting blind persons to find employment in all areas, also assist blind computer trainees to find employment in computer centers. While statistical summaries show an apparently high rate of success in placement, those statistics were obtained during a period in the United States in which entry into computer occupations was at an all-time high. In addition, specialized facilities reporting spectacular statistics did not distinguish between those trainees hired by their own facility and those obtaining independent employment.

Special aids

Integrated Training

Comparing the Two Types of Training

Placement

Breadth of Education. The specialized facilities all agree that the best programmers are those who possess skills in some specialty field, such as engineering, cost-accounting, economics, etc., in addition to skills in computer programming. They cannot, of course, provide such specialty skills. When the integrated training environment is a college or university, such skills are directly available to the blind student, in addition to the programming skills that he is acquiring. One might speculate that specialized facilities are better at retraining a man newly blinded by adding computer skills to his existing skills, whereas integrated educational environments are better at providing a breadth of skills, which includes programming as well as other specialties.

Quality of training. Some specialized facilities have provided high quality training. However, there tends to be little "turn-over" among teaching staff, with limited exposure to persons or ideas from other settings, specialized or integrated. On the other hand, the integrated training environment provides a constant exchange of persons and ideas, providing assurance of quality training through continual review of the quality of its staff.

Supportive services. The blind student, in whatever training environment, requires braille and/or audio-tape study materials, as well as other pertinent aids. While the specialized facility is best equipped to offer such services, the services available to the blind student in an integrated training program are currently of high quality and well organized. One may also note a tendency for specialized facilities to establish their own libraries or stores of resources, freely available to their own students and graduates, but jealously kept from others. The competition evident among specialized facilities is not conducive to the sharing of materials freely. Such open exchange and free cooperation are more characteristic of the integrated training environment in which blind and sighted persons are educated together.

□ We have three options in the United States by which blind persons might obtain education and employment in computer centers. The first is not a very good option for most blind persons, since it simply recognizes that a small number of extraordinary individuals have obtained such education and employment under circumstances which would certainly stop most people from doing so. The second option stems from the existence of specialized facilities where blind persons with moderate skills may receive training of an intensive nature which includes: (a) computer science and mathematical topics, (b) applied problem-solving and topics in programming techniques, and (c) direct or indirect assistance with the numerous practical problems of blindness itself. The success of this second option in the United States is an impressive accomplishment. More recently, a third option has become available: blind persons enrolled in standard educational curricula, designed primarily for sighted persons, are making effective use of that experience to obtain education and employment in computer centers. This third option depends critically upon the widespread availability of braille and audio texts, programs for the direct embossing of braille by unmodified computers, the increasing use of sensory aids, and the full professional support of such national bodies as the Association for Computing Machinery and VIDPI.

Breadth of education

Quality of training

Supportive services

Summary

The third phase of our experience in training blind persons for computer occupations requires two elements for its continuing success. First, there must be a steady effort to educate the educational community to the feasibility of integrated training. It must never be allowed to happen that an educator rejects a blind applicant on the grounds of his blindness alone.

Educating the educators

Second, the supportive services now available directly to blind trainees in standard training environments should be continued and even expanded. These services now include access to audio tape and braille materials, training in mobility and communication skills, and information about other blind persons in computing careers. Supportive services could be extended to include one or more centers where intensified training could be offered to blind trainees to aid them in effective utilization of their standard educational environments. Such intensified training would include many of the advantages offered by the second phase option, but would be packed into a briefer period, perhaps a month or less. It would not substitute for, but would support and supplement, the standard educational experience of the trainee. A final extension of the supportive service would be to identify a resource list of experts who might, if required, visit a standard educational setting which is offering training to a blind person, and who might provide guidance or advice on some urgent critical problem.

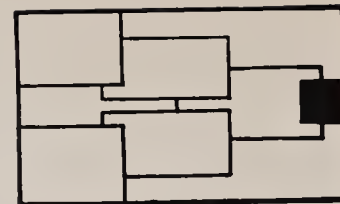
Expanding supportive services

Hopefully, the diversity now present in our system will better meet the needs of our population than any single option could. The several years immediately ahead will determine if our methods are useful.

The Small Planning Committee—*Continued from page 265.*

upon, decisions are being made for them, and we reinforce over and over again the stereotype of uselessness and superfluity. It must be obvious, too, that a plan such as described here can be used with any group, regardless of disability or age or sponsorship. The words "staff" and "volunteers" are used interchangeably. It really does not matter who does the job, as long as it is done correctly and with feeling. Human beings and their needs are the same everywhere. We feel that ours is a simple and enjoyable approach for meeting these important needs.

Editorial Notes



A New Era for AFB and Blind People?

On page 257 you will see the announcement of a new position in the American Foundation for the Blind, that of director of Sensory Aids Development.

This new program, with its three-pronged approach of market research, market development, and dissemination of product information, marks the beginning of a new thrust in the life of the Foundation. With the proliferation of technological devices that may be of aid to blind and visually handicapped persons, there appeared to the AFB Board and staff the need for a centralized source of information and a systemization of distribution of these devices.

John S. Crowley, president of the AFB, described these problems and some possible solutions in a speech entitled "Moving Bio-medical Research Into the Marketplace" at the AFB's fiftieth anniversary Symposium on Science and Blindness in 1971. (This speech is included in the proceedings of the meeting, *Science and Blindness: Retrospective & Prospective*, recently published by the Foundation.) He

pointed out that moving research to the marketplace requires a number of steps: finding the devices, evaluating them, finding manufacturers, setting up a distribution system—all of which, of course, costs a lot of money.

The beginnings—the compilation of a list of the various devices in the research or prototype stage—has already been done in the past year by a consultant. So has an evaluation of the potential market for the devices (see the article by Louis H. Goldish in the *New Outlook for the Blind*, June 1972, pp. 183-190).

Now the Foundation is faced with arranging the evaluation of devices, finding manufacturers, finding financing, and then, most of all, telling people where they can get them. In some cases, AFB itself will distribute them; in others it will simply serve as a source of information.

The *New Outlook* over the years will be a main source of information, but there will also be developed other channels—flyers, news releases to other publications, mention in the existing AFB Aids and Appliances catalog, perhaps a newsletter.

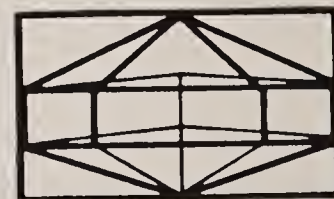
And even now the Foundation has at the printer's a new *International Catalog of Aids and Appliances*, which lists devices and aids being manufactured all over the world. It describes the devices, gives prices, and where to order them. We have missed many devices, we are sure, but if people tell us about them, they can be added when the catalog is revised two or three years hence.

Needless to say, the new program marks a new era for the Foundation if it goes as the Board and the staff hopes. One person commented that this program—if it succeeds—can be as important to blind and visually handicapped persons as was the development of the talking book—also an AFB innovation.

During the next year, we will keep you informed through the columns of the *New Outlook* about the program's progress. It will not solve all the problems of devices for blind persons, but it should help move some good and useful devices from the researcher's laboratory into the marketplace and then into the hands of the users.

—P.S.S.

Hindsight



Pokey Is Dead

Pokey is a dog, or to be more accurate, was a dog. Relax—I am not going to tell you the story of a dog that led a blind person, or, for that matter, a dog that did anything unusual or significant. Pokey was just a plain mongrel dog that looked more like a fox terrier than anything else, whose tail was never bobbed, and who was just a lov-

able little nuisance in the Barnett household for 12 years.

Well, then, if Pokey didn't serve the blind as a faithful leader, why take up space in "Hindsight" to tell you that she died? "Hindsight" normally concentrates on the lighter side of things, and the death of a dog is certainly nothing to smile about. My reason is simple enough: Pokey

went blind before she died. I want to tell you about my reactions to her blindness; I only wish I could tell you about hers.

Pokey began her life like any other puppy, a tiny thing that could be held in the palm of one hand. No one knows now just where the name came from, but when we later began to fraternize with the dog fanciers we decided to work out a pedigree

AFB Offprint Series

From the New Outlook for the Blind:

- 1. Aging and Blindness: A Public Symposium. Six articles, 19 pages, 30 cents.
- 2. Auditory Maps: An Orientation Aid for Visually Handicapped Persons, by Bruce B. Blasch, Richard L. Welsh, and Terry Davidson. 14 pages, 20 cents.
- 3. The Blind in the Age of Technology: A Public Discussion (with six outstanding participants). 18 pages, 30 cents.
- 4. Braille Bookkeeping, by Wallace R. Arms. Five pages, 15 cents.
- 5. CCTV Reading Systems. Two articles and a supplementary bibliography and list of sources. 15 pages, 25 cents.
- 6. Child Rearing by Blind Parents. Three articles. 19 pages, 30 cents.
- 7. Counseling Families of Severely Visually Handicapped Children, by Helen E. Froyd. Five pages, 15 cents.
- 8. The Current Status of Services for Deaf-Blind Persons, by Robert Dantona and Peter J. Salmon. Six pages, 15 cents.
- 9. Optical Aids: An Interdisciplinary Prescription, by Randall Thomas Jose and Donald Springer. Seven pages, 15 cents.

- 10. The Response of Individuals Beginning Work With Blind Persons, by Allan L. Ward. Five pages, 15 cents.
- 11. Sensory Stimulation: Two Papers, by Robert H. Carolan. 12 pages, 20 cents.
- 12. The Severely Visually Impaired Population as a Market for Sensory Aids and Services: Part One, by Louis H. Goldish. Eight pages, 15 cents.
- 13. Storytelling and the Blind Child, by Jean D. Brown. Five pages, 15 cents.
- 14. Time, Money, and Students With Visual Limitations, by Glenn Leavitt (on study techniques). Five pages, 15 cents.
- 15. The Use of Aluminum Sheets in Producing Tactual Maps for Blind Persons, by Roger W. Craven. Eight pages, 15 cents.
- 16. When You Meet a Blind Person, by William Goodman. Seven pages, 15 cents.

From the AFB Research Bulletin:

- 1RB. The Blind Child and His Parents: Congenital Visual Defect and the Repercussion of Family Attitudes on the Early Development of the Child, by G.C. Lairy and A. Harrison-Covello. 24 pages, 30 cents.

Order from: Publications Division, American Foundation for the Blind, 15 West Sixteenth Street, New York, New York 10011.

(Discounts are available on orders for 50 or more copies of any one title.) Please send the following AFB Offprints to:

No.	Item	Amount	No.	Item	Amount
_____	1 @ 30¢	_____	_____	9 @ 15¢	_____
_____	2 @ 20¢	_____	_____	10 @ 15¢	_____
_____	3 @ 30¢	_____	_____	11 @ 20¢	_____
_____	4 @ 15¢	_____	_____	12 @ 15¢	_____
_____	5 @ 25¢	_____	_____	13 @ 15¢	_____
_____	6 @ 30¢	_____	_____	14 @ 15¢	_____
_____	7 @ 15¢	_____	_____	15 @ 15¢	_____
_____	8 @ 15¢	_____	_____	16 @ 15¢	_____
_____	1RB @ 30¢	_____			

name

organization

address

citystatezip

Total Enclosed \$

To be billed ☐ Payment must accompany all orders totaling \$6.00 or less.

PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

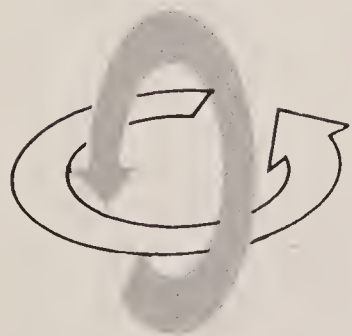
Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)

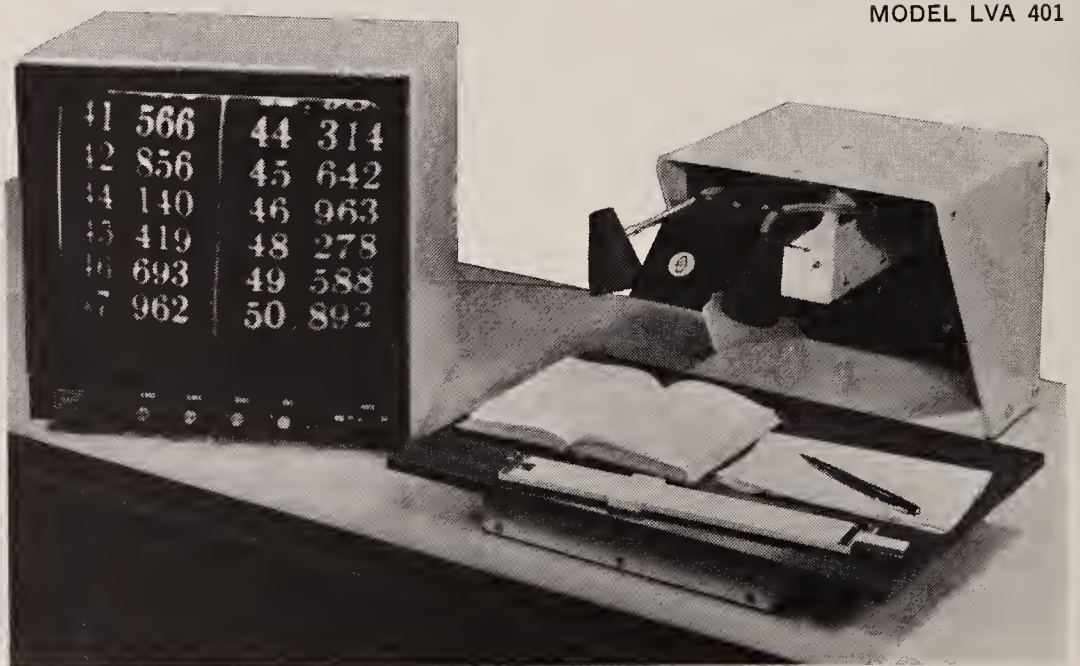
MODEL LVA 501



**PELCO
SALES
INC** ●

351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402

MODEL LVA 401



for her. The name became a short form for the more sophisticated name of Pocahontas of Palma-Ceia—the first part, of course, being the Indian maiden, and the latter part derived from the section of the Tampa-St. Petersburg, Florida, area in which we lived at the time. Pokey was always a well-behaved dog, as dogs go, and never distinguished herself in any way except for the characteristic of smiling. She really did crinkle up the ends of her lips whenever she was introduced to new friends.

Except for being treated to the usual array of anti-rabies shots and the like, Pokey lived a life that seldom included trips to the veterinarian. She was a very healthy animal, all things considered, until she lost her sight about three months before she died.

I haven't heard any statistics lately about the blind canine population. I imagine it is quite substantial, and a survey probably would show that it can be divided into the very young, the employable, and the senior-citizen type. No matter how much one groups people into age ranges, however, they still defy statistics as individuals, and so I like to think that Pokey was above all an individual sort of a dog. But as a category, or can we say dog-etry, she was in the elderly group. Her blindness was the result of conditions normally found in dogs of advanced age, uremia and cataracts (is the subject too dismal to say dog-aracts?).

The first clue we had to the fact that Pokey had lost her sight was her stuffed-up nose. We thought she was getting some disease that affects the respiratory system. It turned out, however, that she was simply stuffing her nose with all kinds of debris and dirt and dust trying to sniff her way about the house and the grounds around it. The next clue was the fact that she stopped yapping. Pokey was one of those lovable little pets that barked at everything—to go out, to be let back in, at milkmen, at garbage trucks, at other dogs, at people. All of a sudden she grew silent, and never barked at anything. I believe firmly that it was because her own barking disturbed

her in the use of her ears, and I want to tell you about that, too.

Pokey was never one to use her ears to create that alert-dog personality. She let them flop for a dozen years, occasionally lifting them if there was a particularly interesting or provocative sound in the distance—which usually was the distance from the living room to the kitchen and the sound was the can-opener. After her sight failed, those little ears were as erect as those of a dog sculptured in bronze. I sort of got the idea that the stuffed-up nose and lifted ears were indications of how a mere dog tries to navigate without eyesight, and believe me she was doing very well.

For a few days, Pokey would not venture away from her accustomed bed in the kitchen. Let out on the porch, she would progress in gingerly fashion to the top of the steps, and there she would catapult down the flight in a manner calculated to break her neck while it also broke the heart of anyone watching her. The odd thing is that Pokey never broke her neck.

Our house was an old and rather larger than ordinary place. Pokey used to make it from the back door to the front door around the yard in a minute flat—especially if her yapping at the back door brought no door-opener and she thought she heard someone at the front. After she lost her sight, she would disappear from the back door and a half-day later appear at the front. As she became more accustomed to the outside—I would say in just two weeks' time—she could make the trip in a quarter of an hour.

As a blind person myself, I was greatly interested in the attitude of the family toward Pokey, as you might imagine. They gave her neither sympathy nor assistance. Naturally, I identified with her more than they, but I also found myself too busy to take up much time with her. I thought for a time that I might look up the directory published by the Foundation to see if there exists any specialized agency for the canine blind. I thought better of it, though, since obviously at her age all that any such agency could do would be to give

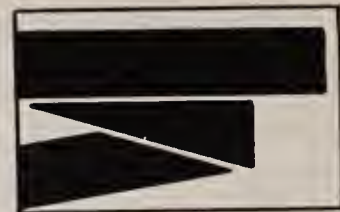
her a white collar. They might have offered her recreational services, but Pokey never really cared much for recreation in the first place. The most fun she ever got was following us around, and she already was doing that pretty well with her stuffed-up nose and alert ears. The rest of the time she was content to eat and sleep—and what dog isn't?

Pokey was just beginning to complete her adjustment to blindness when other illnesses took over. It really was rather remarkable just how she had begun to trot about the house and grounds in something akin to her life-long manner. She began wagging that tail again—the long tail that was never bobbed and that must have been wagged a billion times in her day. She was beginning to prance again—the prancing she would do to create a tap-dance on the linoleum to signify her thirst or hunger or desire to get outside. She was moving about the place with confidence, and while the ears were still aloft, the nose was not quite so stuffed-up.

The veterinarian said that morning that she could live only a few hours. All that was left was a weakly wagging tail, a drearily raised head, and one alert ear. Uremia was far gone and the heart was in bad condition. So Pokey died. I really cannot present all this as scientific observation, but the last days of Pocahontas of Palma-Ceia do suggest that there might be something to learn in observing our animal friends. It was rather difficult for the family to watch her pathetic efforts, and pity was aroused, but in the long run little Pokey demonstrated that blindness was not the handicap one might have thought. It is a shame, I think, that Pokey could not talk or write, or otherwise she might have done an autobiography that could be added to the catalog—or should I say dog-alog—of personal experiences of the blind from which we all learn something, I think.

—M.R.B.

Reprinted from the September 1959 issue of the New Outlook for the Blind.



A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be 350-1,000 words in length.

Blind Testers in the Food and Fragrance Industry

Elisabeth D. Freund

Did you ever wonder how the manufacturers of soap, margarine, chewing gum, perfume, coffee, beer, detergent, or any other product manage to produce exactly the same taste or fragrance in each and every package? They do it by having their output constantly compared to a standard sample indicating how the product *should* smell or taste. This "quality evaluation" is done by special testers, very often by a panel of five to eight persons who compare and discuss their opinions. If they think there is any deviation from the standard, it can then be immediately corrected.

Such tests usually have been done by sighted persons. Since, however, these sighted individuals are often required to perform their tasting and smelling tests in special darkened booths or under a blindfold (because of the distracting effect of color on the senses of taste and smell), it seems logical that qualified and trained blind persons could also perform these tests.

Of course, such jobs are for only a few select persons. And, unfortunately, in many states, there will be no industries in which testers are needed. Moreover, a firm must have an enormous production before the employment of a whole panel of either sighted or blind testers can be considered. When the output is small, it is usually the chemist, brewmaster, or some other staff member who is responsible for quality evaluation.

Just the same, the idea is beginning to catch on. The first blind testers began working in breweries in Lima, Peru, as early as 1962. Two years later, a large factory in Florida followed with a panel of six blind persons. This company's pamphlet "Blind Testing—It Works!" has done a lot to publicize the idea.

Although such panels work in comfortable surroundings and at a leisurely pace, testing is not as easy as it might seem. Not everyone is suited to such work. It is not so much that an especially acute sense of taste or smell is required or even desired (the senses get sharpened by training and practice), but that certain personal qualities are indispensable. A tester must be able to work in cooperation with others; neither the "bully" who cannot accept another's opinion nor the "follow-the-leader" type is suitable. A certain level of education, the ability to express and discuss one's findings, and the capacity to memorize tastes and smells are also important. Most of all, prospective testers must be genuinely interested in the work and like it; some find that they just cannot cope with many smells and tastes.

The problem is how to get such a job. An individual should not begin by spending time and money on training. It will not help either to try contacting a firm directly. The management of most companies have no experience with blind people, but they do have lots of deep-rooted prejudices. Because of this, I have tried to attack the problem from this end and have attempted to convince the industrialists that employment of blind testers is to their own advantage. I have lectured before local groups of food managers and have published articles and reports about the project in the leading trade magazines. (See also my article "Tasters and Smellers in the Food and Fragrance Industry," *Rehabilitation Record*, Vol. 14, No. 2, March-April 1973, pp. 6-9.) In May 1972 I addressed the American Insti-

tute for Food Technologists in Minneapolis and in April 1973 the convention of the American Perfumers in New York City. At this latter meeting, a member of the Monell Chemical Senses Center, University of Pennsylvania, reported on his tests of the sensory abilities of blind persons.

As a result of these efforts, two large firms have employed panels of blind testers and blind groups are in training at other firms. If a firm is considering the employment of blind testers, they are likely to contact me and I will put them in touch with the regional agency for the blind and provide the agency with all information about the approved methods on how to screen prospective candidates from among their clients. The screening takes approximately three weeks and is done by the rehabilitation workers of the agencies for the blind.

Since methods of testing differ according to each firm's product, six to eight months are usually needed for intensive training in the factory. During this time the candidates are paid daily. Once accepted for a permanent job, they begin earning the current rate for laboratory technicians with the possibility of advancement and raises.

One large company that has employed blind testers for some time is General Foods, Ltd., in Montreal, producers of instant coffee. It has announced, "The results obtained from the blind taste panelists are the most reliable ever experienced . . . the panel is an unqualified success in every respect." Glidden Durkee, in Jacksonville, Florida, producers of synthetic flavoring and perfumery chemicals, states: "Our blind employees quickly outperformed a panel of sighted people that had previously been responsible for our odor quality control. . . . As we review our nine years of experience . . . we can say that it has been an outstanding success."

I have to repeat that, so far, very few

new jobs are available. Even in the future, testing will be a job for only a handful of persons, not for several hundred. I have written this piece to inform blind persons and those concerned with their employment of the progress of this project. Earlier reports, containing misleading and over-optimistic forecasts have resulted in my being overwhelmed with hundreds of requests for jobs that do not exist. Nevertheless, some hope is to be found in the fact that the idea of employing blind testers is beginning to catch on; the industry is beginning to inquire about this possibility and to see that they can profit from employing blind testers.

Mrs. Freund, founder and former curator of the Touch and Learn Center, Overbrook School for the Blind, Philadelphia, is now associated with Science for the Blind as project director, Employment of Blind Tasters. Her address is 52 Knollbrook Road, Rochester, New York 14610.

Definitions of Blindness: A Need for the Raising of Consciousness

Leslie L. Clark

To publish "What Does It Mean to Be 'Legally Blind'" by James S. Liska (*New Outlook*, January 1973, pp. 19-20), clear and concise though it is, without a concomitant piece to illustrate the meaning of a functional measure of vision, is to me a giant step backwards. Those quotation marks around "legally blind" are there, as is well known, for a good reason—namely that there is no definition in the law of blindness; therefore the definitions used, in the United States as elsewhere, are administrative definitions or, more generally, economic definitions of visual impairment.

The comfortable security of a number derived from a test with a Snellen (or any other) chart for near vision also does not give any indication of what the capabilities of an individual may be for distance vision, and there are, or may be, serious discrepancies between the two.

Over the past ten years, a good deal of effort has gone into raising the consciousness of workers in the field regarding the meaning and importance of the phenomenon that two persons with the same measures of visual acuity will behave different-

ly: one will act like a "blind man" and the other will act like a sighted person. The difference is, of course, in the way in which each uses what vision he has. Thus the functional definition of visual impairment assumes an importance in daily life far beyond the importance of visual acuity numbers in comforting the professionals who deal with the visually impaired. This fact is now being recognized by the U.S. Public Health Service, whose national samples now include some attempts to get at functional measures of vision. Research continues on refining these measures.

The notion of functional capability is more subtle and permits fewer "clean cut" determinations of eligibility of individuals for services they might request or desire; but because of its recognition of the wide variations in individual capabilities in vision, it reflects more faithfully the importance of what vision remains than do measures of acuity as these are commonly used in the field.

Mr. Clark is director of the International Research Information Service, American Foundation for the Blind, New York City.

Strength in Union

Alberta Munkres

Twelve persons were in need. They all had the same problem. And not one of them knew how to solve it.

Individually, these persons had solved one problem related to their common need. Because of decreased vision, which prevented reading ordinary printed materials, they had become users of the recorded books and the machines on which to play them that are furnished free of charge by the Library of Congress.

This serves well for books and certain periodicals, but not for incidental materials which are not available in recorded form. Of special interest to these 12 persons was the magazine published monthly by the retirement community where all of them lived, Frasier Meadows Manor in Boulder, Colorado.

This magazine, known as *The Mirror*, was of special importance to them, reflecting as it does life in the Manor and offering articles of wider scope also.

To be sure, sighted friends had offered

their services to individuals. But the swift passage of time and the difficulty in making and keeping appointments, often prevented this intention from being carried out. Furthermore, the service seemed too much to request of or receive from one individual regularly.

So it turned out that the partially sighted residents, by listening to conversations at table, in the corridor, or over the card table, could pick up isolated items; but they rarely felt the impact of the total publication.

What could be done? At last an idea emerged. They formed a group and invited a sighted fellow resident to read *The Mirror* from cover to cover to all of them at one time. So the pattern was developed of meeting each month on the day the magazine was released.

As a result, the partially sighted residents are now "in the know" from the first. They can enter into conversation, ask questions, and offer opinions.

Consequently, there exists no noticeable difference between the sighted and those whose vision is lowered. The old adage, "In union there is strength," had been proven true.

And this is not the whole story. Already there seems to be developing a sense of belonging to a group, fostered by discussion of common problems and the sharing of talking book readings.

More recently, there has appeared a sensitivity to the needs of individuals outside the group. For example, one member reported on a person recovering from cataract surgery. Unable to read, time was passing very slowly for this individual. Quickly and easily, talking books were supplied for temporary use.

In this instance, the satisfaction sensed was so great that it gave birth to another idea. Why not anticipate a situation like this and make unnecessary any emptiness in what must seem like a long period?

Thus, 12 persons not only solved their original problem, but in the process won unexpected values for others as well as themselves. Hopefully, this is only the beginning, not the end of the story.

Professor Munkres is emeritus professor of elementary education, University of Denver, and resides in Boulder, Colorado.

Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

Letters to the Editor

Comments on "Touch and an Occasional Tap"

To the Editors:

The California Association of Orientation and Mobility Specialists—Northern Chapter would like to express their views concerning the Go-Sees' booklet "Touch and an Occasional Tap," along with the incongruity of the *New Outlook for the Blind* regularly advertising the "Sensi-Quik" cane method.

A panel of orientation and mobility specialists evaluated the current recording of "Touch and an Occasional Tap" and recorded their comments.

Specific comments were made as follows:

A. The cane and travel techniques presented to the student were frequently incomprehensible to the panel members. For example, each had a different idea as how to execute the "stair technique" and the "scissors kick."

B. "Cane talk words" are not in the vocabulary of the professional.

C. The safety factor was brought up again and again. An orientation and mobility specialist will frequently give over 100 hours of instruction before attempting a unit in public transportation. The instructor may then be given an additional 50 hours on this phase of instruction. On the recording of "Touch and an Occasional Tap" the instructions in the use of public transportation are covered after approximately 12 minutes of playing time and then approximately three minutes are given to this phase of training. The panel felt strongly that this type of encouragement given without adequate preparation and without an orientation and mobility specialist directly involved in a training program is extremely dangerous. The panel also felt that this lack of an adequate progressive training program will frequently result in the failure and complete discouragement of the would-be traveler.

We would like to raise the question as to why the *New Outlook*, which is a magazine for professionals, is in effect promot-

ing a non-professional "orientation and mobility program" in their publication? In a similar vein, it is incongruous to us that the American Association of Workers for the Blind, Inc., which is supporting certification of orientation and mobility specialists, is on the other hand encouraging subscription to its membership to the *New Outlook for the Blind* which accepts the Go-Sees full-page advertisement regularly.

James J. Lassen, President
California Association of Orientation and Mobility Specialists—Northern Chapter
Concord, California

Editor's Note: The New Outlook does not advertise the "Sensi-Quik" cane method, as stated in the first paragraph of the above letter, but, as stated in the last sentence, accepts the Go-Sees' advertisement for publication in its pages. Further, as reference to the Go-Sees advertisement on the facing page will indicate, the advertisement is for the Go-Sees cane. The booklet, "Touch and an Occasional Tap," is mentioned, but neither as an "orientation and mobility program" nor as an instructional guide to a "cane method."

A Reply From the Go-Sees

I think that the more formalized approach to the mobility problem, of which Mr. Lassen is an exponent, is somewhat different from the objective of the Go-Sees. Ours does not pretend to be adequate or sufficient to the need of every blind individual. This latter is quite properly the sphere of the personal relationship that the qualified orientation specialist can serve and a service, as we indicate in our instructional manual, that each new beginner at the skill should, if at all feasible, avail himself of. In point of fact, most of our members have had prior instruction in cane technique.

Our approach is not only verbal but in part it also is expressed and bound up with the symbolism of our cane—which

we endeavor to glamorize as contrasted to some other that might pass as just another cane for the blind. Hence, we call our cane Sensi-Quik, the touch cane of the Go-Sees.

I can't help feeling that it could have only been a prejudiced eye, or ear for that matter, that mistook the word "step" for "kick" in our description of the scissors step. We have merely described it as it is actually accomplished; how else would a learner of the skill be able to envision it or, if need be, to effect a quick stop? If he couldn't see, he would have to be told. To be sure, it would help and might often be necessary for him to try it this and that way under the eye of the instructor until he does it correctly.

But I think Mr. Lassen's misconception relating to our approach, as I have said, has to do largely with his attaching a more ambitious objective to our approach than we actually pretend to.

As our conception of the technique is formulated, it is designed for a totally blind individual of good courage and physique. Any variant from this norm would naturally require modifications and adaptations that the mobility specialist's personal relationship with the learner best fits him to provide. Our approach should serve as a useful framework indicating the general potential and scope of the skill as well as its limitations. Our aim is to cooperate rather than compete with the mobility specialist.

Personality as well as skill can be a factor. False pride can be a handicap to the touch walker. Undue shyness can cripple purposeful independence. Whatever level of confidence and competency the touch traveller achieves, he will be in some degree dependent on the cooperation of the sighted in handling the grist of special problems that are likely to arise when he goes into strange territory.

Franklin S. Clark
for the Go-Sees, Inc.
New York, New York



OPTISCOPE®

Illuminated Enlarger System

MODEL C

see any print
ILLUMINATED
and **ENLARGED**
in black and white
or full color

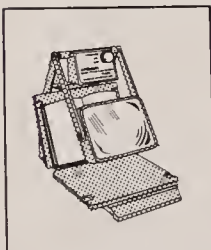
**A MORE
SELF-SUFFICIENT LIFE
FOR THE PERSON
WITH LOW VISION**

\$295

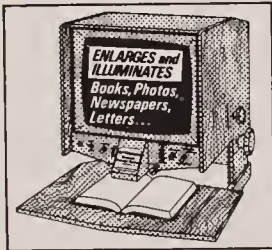
f.o.b. Hempstead, N.Y.

**IDEAL
FOR THE LOVED ONE,
SCHOOL, NURSING HOME,
OR LIBRARY**

Also available from Opaque Systems Ltd.



**Better Vision
Lens System
MARK V**



**Electronic
Enlarger System
ELECTRO CC 5000**

The Optiscope Illuminated Enlarger System-Model C is a *new medical instrument* that now enables thousands of partially sighted persons and persons with low-vision capabilities to read books, newspapers, magazines and personal letters, or to view treasured photographs. All in black and white and full color.

The Optiscope projects an illuminated image on a large 9 in. x 14 in. polarized screen and the unique OPTILITE Comfort Control regulates the illumination for one's personal comfort. The unit is compact, portable (only 14 pounds) and simple to operate.

Also available from Opaque Systems Ltd., is the Better Vision Lens System-Mark V with the Optilite Comfort Control and the Electronic Enlarger System Electro-CC5000, a single unit, compact, self-contained closed circuit television system.

Write or call to order any of these low-vision aids or for additional information and color brochures.

Copyright ©1973, Opaque Systems, Ltd., Hempstead, N.Y. Patented, other U.S. and foreign patents pending. Specifications and prices subject to change without notice.

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

From the Field



RADIO STATIONS AND PROGRAMS FOR BLIND PERSONS

Last summer, the *New Outlook for the Blind* received a manuscript describing a new radio program for blind persons in Michigan. Instead of running that article at the time, the editors decided to try to do a "round-up" on the existing programs and/or stations aimed specifically at blind persons. At Christmastime, we asked for information from those groups that we knew about. Following are extracts from their reports.

We realize that there are probably a number of other projects underway (at this writing we know of proposals in New York City, Philadelphia, and Youngstown, Ohio), so we ask directors or sponsors of those projects to submit information to the *New Outlook* for publication in a follow-up list in a late 1973 issue.

Four closed-circuit "talking book" stations are described, along with a radio program for blind persons broadcast by a regular FM station.

Every FM radio station has the capacity to operate at least two sub-carrier channels in addition to its main channel. One sub-carrier is usually used with the main channel in connection with stereo broadcasting, while the second is seldom used at all. When it is, it is generally rented to companies that provide background music in stores, offices, and factories.

The second channel, however, is being used by each of the stations described to form "closed-circuit" systems requiring the use of special radio receivers that are permanently set to receive the sub-channel. This means that special receivers must be placed in the homes of the visually or physically handicapped listeners. The eligibility requirements are the same as those required for participation in the Library of Congress program for the blind and physically handicapped.

Minnesota—Radio Talking Book

The Radio Talking Book was born in Minnesota January 2, 1969.

Of the 400 volunteers contributing time and talent toward service at the Communication Center, Minnesota State Services for the Blind, approximately 150 contribute toward the production of 17 hours of daily RTB programming. The 20 Communication Center staff members, most of whom have other major responsibilities, have become ever more imaginative and skillful in their assignments with the Radio Talking Book, according to Joanne Jonson, director of the Communication Center.

There are now three full-power transmitters radiating the RTB signal from the Twin Cities, Collegeville, and Moorhead. TV-FM cable systems in an increasing number of communities also carry the Radio Talking Book. Two new stations in southern Minnesota carrying the Radio Talking Book will be on the air in about 12 to 18 months. The antenna of the Twin Cities' transmitter was recently raised from 600 feet to 1,200 feet, substantially increasing the radius of its coverage. In 1972, the educational TV station in the Duluth-Superior area made its microwave link available to carry the RTB signal to a full-power commercial transmitter in Duluth.

The Communication Center purchases wire service news and weather reports in order to keep the listeners up-to-date. The RTB is the printed page for persons with visual or physical disabilities who are denied the choice of reading billions of words, through ink on paper, that those who have normal sight have so readily available to them.

The RTB should not be considered a substitute for the phonograph talking book. The radio should encourage interest and their further exploration through selective reading via talking book records, tapes, and braille. The radio's chief contribution is the currency and localization of coverage which it makes possible.

The latest development with the Radio

Talking Book is the RTB satellite system. This is for the person who wants to have more time to read, but who, because of other responsibilities around his home, cannot remain near his RTB receiver. The RTB satellite consists of a rather complicated but small radio retransmitter built into the cabinet of the standard receiver. It converts the RTB signal to the standard AM broadcast band and rebroadcasts RTB programs, using house wiring as an antenna, to anywhere in the home. One may then read with any AM radio, as long as the RTB switch is turned on. A battery-operated miniature portable satellite receiver is also supplied. It is permanently tuned to the frequency of the retransmitter in the RTB receiver. It also can be heard 30 to 40 feet outside the home, providing for outdoor reading.

Institutional systems employing the same idea, but with much larger retransmitters, will be used to provide Radio Talking Book service in nursing homes and other public and private institutions.

The Radio Talking Book depends substantially upon individual gifts and support from foundations for funds necessary to keep it operating and to help it reach more and more handicapped people who want RTB service. Lions Clubs in a number of Minnesota cities have special projects connected with the RTB. Currently, the listening audience consists of about 2,500 visually and physically handicapped people. Minnesota State Services for the Blind will increase its listenership to 6,000 during 1973 and anticipates an ultimate audience of 15,000.

Since May 1972, the Communication Center has published a monthly calendar of daily RTB programming printed in large type and in braille and mailed to each RTB listener and volunteer.

Kansas—Audio-Reader

Since October 11, 1971, Audio-Reader has been broadcasting on a subcarrier channel of KANU-FM to blind and physically handicapped persons within a 50-mile radius

of Lawrence, reaching individuals living in Kansas City and St. Joseph, Missouri; Topeka and Kansas City, Kansas; and all surrounding areas, according to Brad Canfield, director of Audio-Reader, Kansas University, Lawrence. At last count, over 525 receivers had been distributed to individuals, hospitals, and homes, so that the potential audience exceeds 600 persons.

Presently, Audio-Reader is broadcasting 72 hours of programming per week, including newspapers, magazines, short stories, women's news, poetry, travel, and a wide range of books. Books are broadcast on a one-hour-per-day basis so they resemble old radio soap operas.

There are also many old radio series that are broadcast daily, and because many of the listeners are older, they enjoy hearing these programs again as they did when radio was so popular. However, newspaper broadcasts and the reading of news publications are the most popular offerings, Mr. Canfield noted.

The project is based entirely on volunteer service from citizens within the community and many students at the University of Kansas. Nearly all publications received are donated by their publishers.

At first, Audio-Reader was financed by private contributions from a "friend of the University," but in the spring it was planning a plea for state financing.

Illinois-Missouri—Talking Book, Closed-Circuit Radio

Beginning March 1, 1973, the Talking Book program of WMRY-FM, the radio station of Our Lady of the Snows Shrine, which is directed by the Oblates of Mary Immaculate, in Belleville, Illinois, began broadcasting five days a week from 7 a.m. to 8 p.m., with special emphasis on reading the newspapers as well as the usual talking books. It began with 100 special radio receiver sets.

Funding such a project is a special prob-

lem, according to the Rev. Boniface L. Wittenbrink, O.M.I., executive director of WMRY's Talking Book.

"We are calling this outreach in communication to the blind and physically handicapped 'Talking Book, Closed-Circuit Radio,' for 21,000 blind and handicapped persons. In 1972, when we first began to get organized and wrote our presentation, we raised \$24,839 by sheer hard work and speaking before groups. This amount came from individuals and civic, fraternal, and religious groups," Father Wittenbrink said.

"The reason I mention funding at the start is that many people would say, 'The blind can get money for this from the Bureau and from the AFB, etc., etc.' I feel strongly about educating the American people in this particular area of assistance to the blind and physically handicapped."

Among the contributions were a large grant from the St. Louis Society for the Blind, \$25,000 from a person who wished

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

to remain anonymous, and large amounts from the Lions Clubs of the St. Louis area.

Ultimately, WMRY expects to serve 6,000 blind and 15,000 physically handicapped persons in the St. Louis area.

Because of the mass of publicity the new station received in St. Louis and environs, WMRY received more than 300 calls from volunteers in its first few days of operation, Father Wittenbrink said.

Oklahoma—Plans for a System

Another closed-circuit system is expected to be on the air July 1, according to Peggy Sapp, librarian of the Oklahoma Library for the Blind and Physically Handicapped, which will operate the station.

The system plans to cover the state of Oklahoma utilizing sub-carriers of radio stations in Oklahoma City and Tulsa. It plans to use current newspapers and magazines, with special programs devoted to homemaking, hobbies, and such, as well as the regular talking books. Volunteers will be used until a staff can be organized.

The Oklahoma Department of Institutions, Social and Rehabilitation Services, is financing the program with an original grant of \$175,000.

Michigan—The VIP Hour

(The following report is what stimulated the editors' original interest. It deals, not with a closed-circuit system, but with a special program on a regular FM station. It was prepared by the Rev. W. C. Jenkins, executive director, Service Center for Visually Impaired, Inc., Flint.)

The Service Center for the Visually Impaired in Flint, Michigan, was interested in starting a radio service similar to the Radio Talking Book Network in Minnesota.

We felt that a similar service might fill the gap in Flint that was not being met by talking books, braille, and commercial radio and television. We approached WFBE, the local non-commercial broadcasting station which is licensed to the Flint Board of Education and is a part of the National Public Radio Network. WFBE was familiar with the "Radio Talking Book Network"; and even though its sub-channels were not activated, time was offered on the station's regular broadcast frequency, 95.1 FM. The production and broadcast of a

program for visually impaired persons (VIP's) was in accord with WFBE's dedication to minority listening groups. WFBE offered the services of a director and an engineer, the facilities to produce a program, and two hours of air-time for broadcast.

The Service Center accepted WFBE's offer and planned an hour-long program for the visually impaired in the Flint area which would fill a definite need as we knew it, while not duplicating services provided in other ways. The result, the VIP Hour, has been very successful.

The Service Center provided a small budget for the VIP Hour. We did not have a real broadcasting studio, but we did, with imagination, improvise an acceptable recording booth.

Volunteers are the heart of the VIP Hour. All of the work of the program, except for that of the WFBE director and engineer, is performed by volunteers, sighted and visually impaired. Our producer, a legally blind woman recruited by the Service Center, is responsible for the overall production of the program. Her job includes: leading program planning meetings, coordinating volunteers, being the VIP Hour hostess, and acting as the link between the volunteers, the staff of the center, and the staff of the radio station.

To help in producing the show, the producer recruited two volunteer assistant producers, one totally blind retired engineer, the other a sighted housewife. As a group, they evaluate the program materials recorded by the volunteers. VIP listeners, who are often included in these evaluation and program planning sessions, have been tremendously effective in improving the program by giving direct and candid feedback to the producers. This information is also passed on to the volunteers who do the recordings.

Each of the 15 regular volunteer tape recordists is responsible for a specific program segment. They are not only responsible for the actual recording of the material, but also for finding the appropriate material to be recorded.

It was found that many VIP's on fixed income did not own FM radios; however, one volunteer was able to purchase receivers at about half the retail cost. The Genesee Federation of the Blind loaned many VIP's the money to purchase the radios at

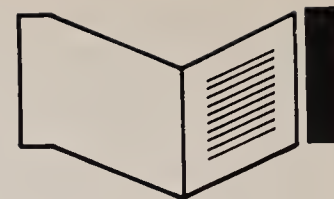
the special price and allowed them to repay the loans at as little as a dollar a month.

The program format of the VIP Hour varies. No segment is longer than ten minutes and most are about five or six minutes long. The most popular segments have included: "Ask the Prosecutor" (reviews laws of interest to listeners and answers questions they have called in the previous week); "Roving Reporter" (interviews with VIP's and professionals who work with VIP's); "On the Lighter Side" (short, humorous human-interest articles); "Fashions for Men and Women"; "Kitchen-craft" (recipes, use of convenience foods, descriptions of kitchen appliances listed in the American Foundation for the Blind's aids and appliances catalog and other catalogs); "Local News in Review" (news from the local daily paper); "Genesee Federation of the Blind Bulletin Board" (Federation activities, blind bowlers' news, and a state legislative report); "Youth Corner" (features high school and college VIP's); "Grin and Share It" (short stories of funny things that have happened to VIP's because of their blindness); and "Raja Yoga" (ten lessons of basic exercises).

Both the station and the VIP's benefit from the new association. The station has gained a large group of new listeners and the VIP's are discovering public radio with its news commentary, serious music, book reviews, drama, opera, and local information programs.

Another benefit of the VIP Hour is reaching sighted listeners. Each program includes items regarding blindness or stories about VIP's. While the positive things blind people do are stressed, the negative aspects of blindness are also mentioned. In this way, we hope to improve the attitudes some sighted people have about blindness and blind people within our community.

In summary, the VIP Hour has provided a real means of communication between the Center and the VIP's, between the sighted and the VIP's, and within the VIP community itself. The real success of the VIP Hour has been the result of a cooperative effort on the part of the volunteer workers (especially the producer), the radio station, the Service Center for the Visually Impaired, and the Genesee Federation of the Blind.



A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

"Tuned-in" Blind People, by C. Stanley Potter. *Rehabilitation Record* (Social and Rehabilitation Service, Rehabilitation Services Administration, Washington, D.C. 20201), Vol. 14, No. 2, March/April 1973, pp. 1-5. Mr. Potter, the director of the Minnesota State Services for the Blind and Visually Handicapped, describes Minnesota's Radio Talking Book program, inaugurated in January 1969. Requests for information should be addressed to State Services for the Blind and Visually Handicapped, 1745 University Avenue, St. Paul, Minnesota 55104. Because of numerous inquiries about the project, Mr. Potter asks that the first contact be made through your state agency for the blind.

Tasters and Smellers in the Food and Fragrance Industry: A Limited New Job Possibility for the Blind, by Elisabeth D. Freund. *Rehabilitation Record* (see address above), Vol. 14, No. 2, March/April 1973, pp. 6-9. The author is project director, Employment of Tasters and Smellers, Science for the Blind, Philadelphia, and is also a consultant for the Monell Chemical Senses Center at Pennsylvania University.

The Sky's the Limit, by Kurt Milam. *Rehabilitation Record* (see address above), Vol. 14, No. 2, March/April 1973, pp. 11-12. The story of James F. Wantz, a totally blind young man, who earned a bachelor's degree in meteorology at Penn State University and is currently employed as an instructor in meteorology at the National Weather Bureau in Kansas City, Missouri.

The Other Side of the Mike, by Jane Finnis. *St. Dunstan's Review* (191 Old Marylebone Road, London NW1 5QN, England), No. 638, February 1973, pp. 8-12. The author, who is legally blind, tells of her work as a freelance broadcaster in London, England.

The Blind, Too, Can Appreciate Fine Art, by Victoria Donohoe. *The Seer* (Pennsylvania Association for the Blind, 2843 N. Front Street, Harrisburg, Pa. 17110), Vol. 43, No. 3, Winter 1972-73, pp. 13-14. Article reprinted from the Philadelphia *Inquirer* concerning the Nevil Gallery for the Blind and Sighted recently opened at the University of Pennsylvania Museum.

The Blind Walk Faster, by Kent Tyler Wardell. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N.W., Washington, D.C. 20005), Vol. 39, No. 2, March-April 1973, pp. 23-24, 40. Brief sample program of orientation and mobility instruction for the long cane traveler.

Zoom Lens—New Hope for the Partially Blind. *Science Digest* (Hearst Corp., 575 Lexington Avenue, New York, New York 10022), Vol. 73, No. 4, April 1973, pp. 38-39. Brief story on the multidirectional telescopic-lensed glasses invented by Dr. William Feinbloom, an optometrist with degrees in physics and biophysics, now a research fellow at Columbia University, New York City.

Audio Tapes Seek a Place in Bookstores, Libraries, by Paul Doeblen. *Publishers Weekly* (R. R. Bowker Company, 1180 Avenue of the Americas, New York, New York 10036), Vol. 203, No. 8, February 19, 1973, pp. 65-68. Market report on the vastly increased production of spoken-word tape cassettes, ranging from plays, poems, and stories to convention papers and educational lectures.

Audio-Tactual Braille: Some Lines of Research, by Michael F. Turner. *Focus* (Dominion Association of the Blind, 42 Wharf Road, Herne Bay, Auckland, 2, New Zealand), December 1972, pp. 51-52. Brief report on efforts in New Zealand to develop a correspondence course suitable for blind adults to use in teaching themselves braille.

Counselling Retinal Detachment Patients: A Review of Research and Practice: July 1965-June 1971, by Annette D. Farley. *The Sight-Saving Review* (National Society for the Prevention of Blindness, Inc., 79 Madison Avenue, New York, New York 10016), Vol. 42, No. 3, Fall 1972, pp. 157-175. Report on a six-year study conducted at the Eye and Ear Hospital of Pittsburgh. The ages of patients ranged from 3 months to 88 years and a section of the report concerns special problems of various age groups (by decade—0-10, 11-20, etc.).

Trachoma and Other Eye Disease in a New Guinea Village, by Scott A. Heath and Barbara Honeyman Heath. *American Journal of Ophthalmology* (Ophthalmic Publishing Company, 160 East Grand Avenue, Chicago, Illinois 60611), Vol. 75, No. 1, January 1973, pp. 121-129. Report of an ophthalmic survey conducted in the summer of 1971 in the New Guinea village of Peri on Manus Island. This is the village which has been the subject of many anthropological studies, beginning with Margaret Mead's famous 1928 field trip. Reprint requests should be addressed to Scott A. Heath, M.D., 5 Via Joaquin, Monterey, California 93940.

Blindness Prevalence Rates in Egypt, by Mohyi-Eldin Said, Hyman Goldstein, Ahmad Korra and Khalil El-Kashlan. *Health Services Reports* (U.S. Health Services and Mental Health Administration, Room 4A-54, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20852), Vol. 88, No. 1, January 1973, pp. 89-96. Article based on data from the U.S. Government-sponsored Blindness Register Demonstration Project in Egypt. The diagnostic classification is comparable to that used by the Model Reporting Area for Blindness Statistics in the United States. Reprint requests should be addressed to Dr. Hyman Goldstein, University of California School of Public Health, Earl Warren Hall, Berkeley, California 94720.

Report on Visual Impairment Services Teams, July 1, 1971-June 30, 1972, prepared by the Department of Medicine and Surgery and the Office of the Controller. U.S. Veterans Administration (Vermont Avenue between H and I Streets, N.W., Washington, D.C. 20420), September 1, 1972, vi + 148p. The subtitle of this report is "An Analysis of VA Outpatient Services Given to and Characteristics of Severely Visually Impaired and Blinded Veterans."

Sticks and Bones, by David Rabe. Samuel French, Inc. (25 West 45th Street, New York, New York 10036), 1972, 97p. \$1.50. Acting edition of the award-winning two-act play about a blinded veteran's return home.

Low-Vision Aids for Partially Sighted Persons, by Robert V. Spurney. *American Journal of Ophthalmology* (Ophthalmic Publishing Company, 160 East Grand Avenue, Chicago, Illinois 60611), Vol. 75, No. 1, January 1973, pp. 133-135. Description of a recent innovation at the Low Vision Clinic, Cleveland Society for the Blind. A plastic spectacle frame-liner has been devised which permits spectacle-borne optical aids to be used interchangeably in frames of varying shapes and sizes. Reprints should be requested from the author, 20620 North Park Boulevard, Cleveland, Ohio 44118.

Without the Use of All His Faculties—Paul Francia. *St. Dunstan's Review* (191 Old Marylebone Road, London NW1 5QN, England), No. 637, January 1973, pp. 8-13. In 1960, Paul Francia, who had lost the sight in one eye during World War II, became totally blind. Undeterred by the fact that he was nearly 40 years old, he decided to become a teacher and in 1967 graduated with a London University degree in economics. Now a full-time lecturer in political history at Portsmouth Polytechnic in England, he describes some of the difficulties involved and how he overcomes them.

A Salute to People of Courage. *The Royal Bank of Canada Monthly Letter* (Box 6001, Montreal 101, Quebec, Canada), Vol. 52, No. 9, September 1971, pp. 1-4. The title's "people of courage" are the 28,000 blind men, women, and children in Canada. The story describes the work of the Canadian National Institute for the Blind.

Braille in Jail. *Ebony* (820 S. Michigan Avenue, Chicago, Illinois 60605), Vol. 28, No. 1, November 1972, pp. 82-85, illus. The story of Robert Jenkins, Jr., an inmate at Green Haven Correctional Facility in New York, who became a certified brailist in 1967. He has not only transcribed dozens of books, but has also worked with two legally blind inmates and one who is totally blind, teaching them to read and write braille.

I Liked the Part When the Horses Went Kerplunk, by Laddie Marshack. *T.V. Guide* (Box 400, Radnor, Pennsylvania 19088), December 23, 1972, pp. 6-8, illus. Brief report on a special party held by Michael Cole, of the television series *Mod Squad*, in conjunction with stunt men from Stunts Unlimited, at the Braille Institute Youth Center in the San Fernando Valley, October 14, 1972. The guests were 100 blind and partially sighted children.

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind, prepared by the editors.

Agency Administration

Adapting to VR's Future Shock, by Norman L. Meyers. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N.W., Washington, D.C. 20005), Vol. 38, No. 6, November-December 1972, pp. 26-28. To respond to the rapidly changing milieu in which they must continue to operate, state rehabilitation agencies must be prepared to alter their own structure if they are to succeed in carrying out their overall mission. The strategies for change suggested by the author include the project management approach, the work group approach, and the introduction of new entry points into the agency.

The Need for an Honest Look, by Patricia B. Lacks and Karen Plax. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N.W., Washington, D.C. 20005), Vol. 38, No. 6, November-December 1972, pp. 19-22, 41. After discussing the importance of evaluative research for the programs of social service agencies, the authors describe the use of intake and

follow-up forms in their evaluation of the rehabilitation workshop program of the Jewish Employment and Vocational Service, St. Louis. Recommendations, based on this evaluative study, are then presented for the application of similar procedures for other programs.

Aging

Research Planning & Action for the Aged, edited by Donald P. Kent, Robert Kastensbaum, and Sylvia Sherwood. Behavioral Publications (2852 Broadway, New York, N.Y. 10025), 1972. xix + 569p. \$22.95. A collection of 31 previously unpublished papers concerned with theory, research strategies, and the implications of findings for future projects. The intent of the book is to integrate the theory, research, and action components of gerontological science with political activity.

Consumerism

A Role for Social Workers in the Consumer Movement, by Malinda Orlin. *Social Work* (National Association of Social Workers, 49 Sheridan Avenue, Albany, N.Y. 12210), Vol. 18, No. 1, January 1973, pp. 60-65. After a brief history of the consumer movement and a description of the consumer action programs of the U.S. Office of Economic Opportunity, the author discusses the role of the social worker in the consumer movement through consumer education and advocacy, direct action, referral, lobbying, monitoring the enforcement of existing laws, research, and liaison between business and consumers.

Directories, Catalogs, Lists

Large Print for Young Eyes is a descriptive brochure and catalog introducing a new series of large print books for children published by G. K. Hall & Co., 70 Lincoln Street, Boston, Massachusetts 02111.

Library Resources for the Blind and Physically Handicapped: 1972 Directory. Division for the Blind and Physically Handicapped, Library of Congress (Washington, D.C. 20542), 2nd rev. ed., 1972. A complete listing of the regional libraries participating in the Library of Congress program. Includes address, telephone numbers, hours,

librarian's name, special services, and statistics on staff, budget, readers served, book collection, and circulation.

Education

The New Goal in Education: Schooling for Real Life, by Ruth Ann Burns. *Parents Magazine & Better Family Living* (52 Vanderbilt Avenue, New York, N.Y. 10017), January 1973, pp. 46, 76. New Jersey's Career Development Program involves continuous education in real skills and crafts from kindergarten through high school. This article describes the first step, Technology for Children (T4C), which is a part of the kindergarten through sixth-grade curriculum.

One Giant Step: Work-Study in Maryland, by Susan Bliss. *Performance* (President's Committee on Employment of the Handicapped, Washington, D.C. 20210), Vol. 23, No. 5, November 1972, pp. 3-7. A description of the career education program for mentally handicapped students in Prince Georges County, Maryland, a cooperative effort of the State Division of Vocational

Rehabilitation and the County Public School System. More than 300 students are enrolled in the program and nearly 100 employers have participated, including the Goddard Space Flight Center.

Medical Sciences

The Control of Sensitivity in the Retina, by Frank S. Werblin. *Scientific American* (415 Madison Avenue, New York, N.Y. 10017), Vol. 228, No. 1, January 1973, pp. 70-79. An illustrated explanation of how interactions among nerve cells keep the response range of the retinal system in register with ambient illumination, enabling the retina to form a high-contrast neural image over a broad range of light conditions.

Microwaves—A Public Menace? *Medical World News* (1221 Avenue of the Americas, New York, N.Y. 10020), Vol. 13, No. 46, December 8, 1972, pp. 4-5. A report on recent investigations of the link between exposure to microwaves (usually from devices such as radar equipment, diathermy machines, and microwave ovens) and the

formation of cataracts. The research of ophthalmologist Milton M. Zaret, New York City, is discussed, as well as a recent determination by the Veterans Administration that the cataracts of an ex-radar trouble-shooter were "service-connected," making him eligible for disability compensation.

Research

The National Eye Institute, by Carl Kupfer, M.D. *American Journal of Ophthalmology*, Vol. 74, No. 6, December 1972, pp. 1011-1021. (Reprint requests to the author, National Eye Institute, National Institutes of Health, Bethesda, Maryland 20014.) The director of the NEI fully describes the history, organization, budget, program, and other activities of the National Eye Institute, the primary federal effort in research to prevent blinding and disabling eye disorders and diseases.

Brain Mechanisms in Sensory Substitution, by Paul Bach-y-Rita. Academic Press (111 Fifth Avenue, New York, New York 10003), 1972. 182p. \$9.75.



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master . . . original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation



■ The New York Association for the Blind, New York City, will hold a seminar on November 9 and 10 to celebrate the twentieth anniversary of the agency's Low Vision Clinic. The two-day seminar will place emphasis on the contribution of ophthalmologists, optometrists, and opticians to the field of low vision. On the first day, papers will be presented on every aspect of clinical low vision. Workshops and practical demonstrations of advances in low vision techniques will be given on the second day. Applications and additional information about the seminar may be obtained from Clare M. Hood, R.N., Administrator, Lighthouse Low Vision Clinic, 111 East 59th Street, New York, N.Y. 10022.

■ The American Optometric Association, headquartered in St. Louis, has initiated a campaign to encourage a positive attitude about color vision problems, which affect about nine million Americans. The campaign is based on a terminology switch from "color blindness" to "color deficiency." According to the association, the term "color blindness" has a negative connotation and is misleading when used to refer to all color vision problems.

The inability to distinguish any colors at all is extremely rare, says the association, which represents most of the nation's optometrists. Over half of the eight million men and nearly one million women with color vision problems are anomalous trichromats and have comparatively mild color deficiencies. These mild defects can be characterized either as "red-weakness" or as "green-weakness." About one-fourth of all color defective persons are dichromats and have severe color deficiencies. The two most common forms are often called "red-deficient" and "green-deficient."

The first step in the association's color vision educational effort is the introduction of a newly-designed pamphlet, "Do You Know These Facts About Color Deficiency?" to help erase the fears generated

by the old "color blindness" terminology. One study by a school nurse found that students often had a "traumatic psychological response" to the term "color blindness" and that parents "often became very concerned since they thought their child was going blind." Further public information plans call for increased efforts by the American Optometric Association to encourage editors, writers, and other public opinion molders to adopt the "color deficiency" terminology. The address of the American Optometric Association is 7000 Chippewa Street, St. Louis, Missouri 63119.

■ A professional association of orientation and mobility instructors has recently been formed in Pennsylvania. The purposes of the organization, the Pennsylvania Association of Orientation and Mobility Specialists (PAOMS), are to expand communication among mobility specialists throughout the state, to inform the public of the education and rehabilitation process, and to establish and promote professional standards of orientation and mobility instruction. PAOMS is chaired by Richard L. Welsh, 448 Elizabeth Avenue, McKees Rocks, Pennsylvania 15136.

■ The annual braille anthology for blind children, *Expectations*, published by the Braille Institute of America (741 North Vermont Avenue, Los Angeles, California 90029), is holding its second national braille poetry contest for blind children ages eight to 12 years. Three prizes are being offered and all winning entries will be published in the 1973 edition of the annual. Three judges, Richard Armour, Mae Durham Roger, and Helen Sorrells, will select the winners. The rules and entry blanks are available from the Poetry Contest Editor at the above address. The deadline for entries is August 3, 1973.

■ Dr. Derrick Tilton Vail, 74, internationally known ophthalmologist, died April 24, 1973, in London while attending a medical conference. He was the former head of the

department of ophthalmology at Northwestern University Medical School, president of the International Council of Ophthalmology, and editor in chief of the *American Journal of Ophthalmology* from 1940 to 1965. He had also been head of the eye departments of the Veterans Administration Research Hospital and Passavant Memorial Hospital, Chicago.

■ During the weeks of May 15-25 and May 29-June 2, the Albright-Knox Art Gallery, Buffalo, New York, held a special sculpture exhibition, titled "The Matter at Hand," for blind and handicapped persons. The program was sponsored by the Junior Group of the gallery and included an exhibit of 20 pieces of sculpture and a clay modelling workshop in which visitors could learn simple sculpture techniques. Volunteer guides were under the supervision of Charlotte B. Johnson, the gallery's curator of education, and Dr. and Mrs. Kenneth Cross, State University College at Buffalo.

■ The Hadley School for the Blind (700 Elm Street, Winnetka, Illinois 60093) recently announced that it has lifted all limitations on the number of qualified enrollees for its correspondence course "Amateur Radio Theory." Another free correspondence course offered by the school, "College and You," deals with study skills, vocabulary development, college goals, admissions procedures, and campus living. Information on these and other courses is available from the school's registrar.

■ The New Jersey Legislature passed a bill last year which included an appropriation to help defray expenses incurred in connection with the 28th National Convention of the Blinded Veterans Association to be held this August in Atlantic City. Jerry R. Monroe, president of the New Jersey Regional Group, BVA, worked diligently for passage of this bill; he is also chairman of the group's 1973 Convention Committee.

■ The new address of the National Deaf-Blind Helpers' League is 18 Rainbow Court, Paston Ridings, Peterborough PE4 6UP, Great Britain.

■ An investigation into the prevalence of four of the most common causes of blindness and visual disability began recently in Framingham, Massachusetts. Sponsored by the National Eye Institute, a part of the National Institutes of Health, U.S. Department of Health, Education, and Welfare, this study is the first large-scale attempt to determine the prevalence of eye diseases, as opposed to blindness, in a well-defined and closely followed population.

The study will also seek to identify factors which increase the risk of developing any of the four diseases under investigation—senile cataract, senile macular degeneration, chronic simple glaucoma, and diabetic retinopathy. Finding such factors could lead to means of preventing these eye diseases. Even negative findings will be useful in narrowing the search for the causes of these disorders.

Supported by an NEI contract, the four-year study will be conducted by the Boston University School of Medicine's Department of Ophthalmology and will involve examination of approximately 3,500 people. These same people have been participating for over two decades in the well-known Framingham Study of heart disease conducted by the National Heart and Lung Institute, another NIH component.

Chief investigator for the project is Howard M. Leibowitz, M.D., chairman, Department of Ophthalmology, Boston University. Thomas R. Dawber, M.D., who was medical director of the Framingham Study and is now with the Department of Medicine, Boston University, will coordinate the study. A total of \$301,338 has been awarded for the first year's work.

■ Evelyn C. McKay, 75, an early pioneer in work for the blind and executive director of the Louis Braille Foundation for Blind Musicians (LBF), New York, died May 29. Miss McKay was one of the original members of the professional staff of the American Foundation for the Blind (AFB) and was associate editor of the *Outlook for the Blind* from 1931 to 1943. She was the author of numerous professional articles and promoted the training

and certification of home teachers through the summer courses which she organized at Western Reserve and the University of Michigan. Her direct work with clients included administering a scholarship program for the AFB and the placement of blind professionals. After her retirement from the AFB, she became a consultant to agencies for the blind and later organized the LBF.

Correction

■ In the article "Confidentiality and the School Counselor," by Carl J. Davis (*New Outlook*, February 1973), there is a typographical error on page 57. The fifth sentence in the paragraph with the subhead "Memoranda and Notes" should begin: "It is possible for the counselor. . . ." As published, the word "impossible" appears, reversing the author's meaning.

Appointments

■ American Association of Workers for the Blind: **Bruce B. Blasch**, executive director.

■ Colorado State Department of Social Services, Division of Rehabilitation, Services for the Blind: **Joseph W. Peterson**, vending stand supervisor.

■ New York Institute for the Education of the Blind, Bronx, New York: **Roger C. Walker**, director.

■ Blinded Veterans Association, Field Service Program, field representatives: **Don E. Garner, Sr.**, Philadelphia; **Buddy B. Spivey**, Little Rock; **Robert G. Utley**, San Francisco.

■ Hadley School for the Blind, Winnetka, Illinois: **Richard Kinney, L.H.D.**, executive director; **Roger D. Rouse**, vice president; **Michael Carbery, Ph.D.**, director of education.

■ New York Association for the Blind, New York City: **James H. Richardson**, associate executive director.

■ U.S. Department of Health, Education, and Welfare: **James S. Dwight, Jr.**, administrator, Social and Rehabilitation Service.

■ American Public Welfare Association, president (by election): **Miss Charline J. Birkins**, director, Division of Public Wel-

fare, Colorado State Department of Social Services.

■ American Foundation for Overseas Blind, New York City: **Miss Vivian Beyda**, specialist in blindness prevention.

■ American Foundation for the Blind, New York City: **Sam Negrin**, director, Community Services Division (succeeding **Mrs. Doris P. Sausser**, whose retirement is scheduled for June 30, 1973).

Coming Events

June 18-29 Workshop in Rapid Reading of Braille, Culver-Stockton College, Canton, Missouri.

June 20 National Accreditation Council for Agencies Serving the Blind and Visually Handicapped, Annual Meeting, Chicago.

June 27-30 American Optometric Association, 76th Annual Congress, San Francisco.

June 30-July 7 National Federation of the Blind, National Convention, New York City.

July 15-20 International Diabetes Foundation, Eighth Congress on Diabetes, Brussels, Belgium.

July 15-21 American Council of the Blind, 12th Annual National Convention, Knoxville, Tennessee.

July 22-25 American Association of Workers for the Blind, Biennial Meeting, Cleveland.

August 14-19 Blinded Veterans Association, 28th National Convention, Atlantic City, New Jersey.

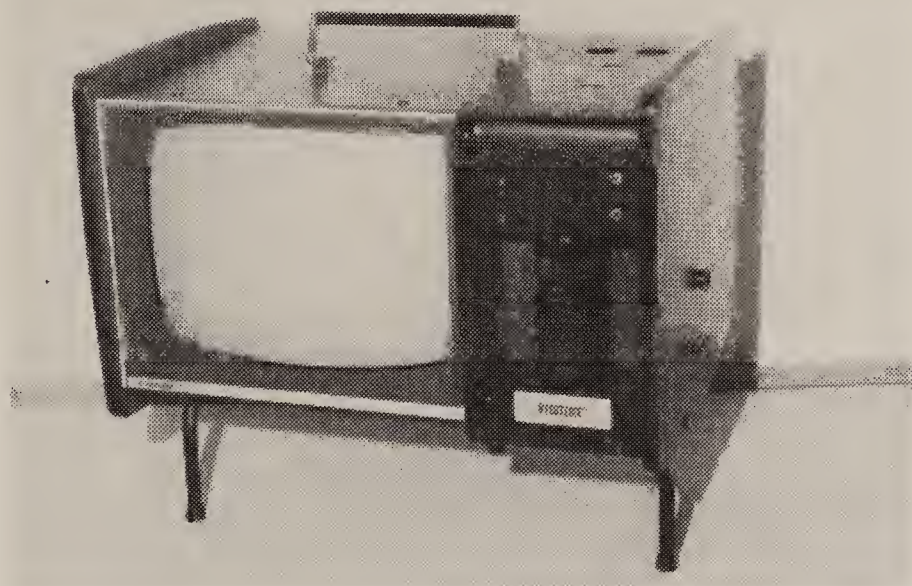
September 3-5 International Eye Foundation, Society of Eye Surgeons, World Congress, Athens, Greece.

September 15 Liaison Committee on Geriatric Blindness—American Geriatrics Society and American Foundation for the Blind, Annual Symposium (Theme: "The Visually Impaired Geriatric Patient: Challenges for the Present and the Future; Challenges for the Visual Sciences"), Dallas, Texas.

September 7-19 State Conference on Attitudes Toward Blindness (Michigan Chapter, American Association of Workers for the Blind and State Services for the Blind), Grand Rapids, Michigan.

• • • For the partially sighted:

NEW THE AMAZING VISUALTEK **MINIVIEWER**^{T.M.}



- Self-contained attractively styled package weighs only 27 pounds
- Optional battery back and recharger allows it to be used anywhere
- 12" diagonal screen monitor
- Variable magnification from x5 to x40
- Built-in illumination
- Optional forward viewing — see blackboards, flip charts, etc. 50' away.

Write for additional information, or see us
at the AAWB show in Cleveland in July.

VISUALTEK 1901 Olympic Blvd. • Santa Monica, Ca. 90404 • (213) 829-3453

New!



1973 Catalog

AIDS AND APPLIANCES

20 CATEGORIES,
INCLUDING . . .

- ☐ GAMES
- ☐ KITCHEN EQUIPMENT
- ☐ MATHEMATICAL AIDS
- ☐ MOBILITY AIDS
- ☐ SEWING AIDS
- ☐ TOOLS & INSTRUMENTS
- ☐ WATCHES & CLOCKS

If you would like to receive a copy of our new catalog and future catalogs (print or braille), please fill out the coupon below. If you have already received a copy, please indicate the name and address of a friend to whom you would like one sent.

This fully illustrated catalog includes full descriptions of all items and complete instructions for ordering.

The Aids and Appliances Division of the American Foundation for the Blind offers this mail order service to provide commercial, adapted, and special devices to aid in solving or reducing the problems arising from blindness.

**Aids and Appliances Division
American Foundation for the Blind, Inc.
15 West Sixteenth Street
New York, New York 10011**

TO:

name

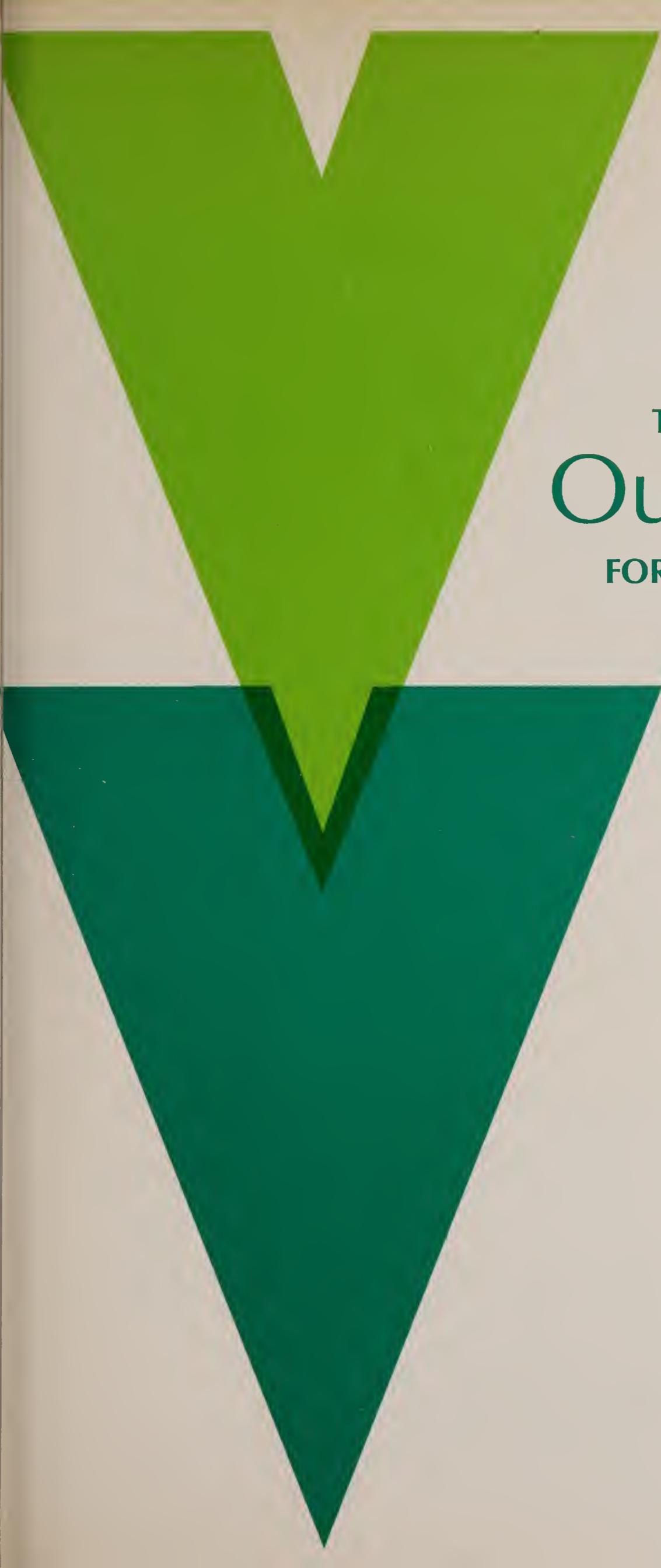
address

city

state

zip

☐ Print ☐ Braille



THE NEW
Outlook
FOR THE BLIND

September 1973 Volume 67 Number 7

The Visually Impaired as a Market for
Sensory Aids and Services: Part Two

*Louis H. Goldish and
Michael H. Marx*

The Five-County Vocational Skills
Training Program, 1970-1972

*Gene H. Russell, Ed.D., and
David M. Butler, M.A.*

Blindness and Social Behavior:
A Need for Research

Larry Dale Baker, D.B.A.

THE NEW Outlook FOR THE BLIND

September 1973 Volume 67 Number 7

Articles

- 289 The Visually Impaired as a Market for Sensory Aids
and Services: Part Two—Aids and Services for
Partially Sighted Persons
Louis H. Goldish and Michael H. Marx
- 297 Transfer of Learning From School Setting to Life
Style in a Habilitation Program for Multiply
Handicapped Blind Persons
Billie Louise Bentzen
- 301 The Five-County Vocational Skills Training
Program, 1970-1972
Gene H. Russell, Ed.D., and David M. Butler, M.A.
- 309 Handicap and Cognition: Visual Deprivation and
the Rate of Motor Development in Infants
Arthur E. Gillman, M.D.
- 315 Blindness and Social Behavior: A Need for Research
Larry Dale Baker, D.B.A.

Departments

- 319 Hindsight
- 321 Letters to the Editors
- 322 Review—*Low Vision: The Edge of Sight
Is My Baby All Right?*
- 325 Comment—William M. Winkley
Nathan Micay
- 328 Current Literature
- 335 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to 75c according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief
M. Robert Barnett

Executive Editor
Patricia Scherf Smith

Managing Editor
Mary Ellen Mulholland

Associate Editor
Michael E. Monbeck

Assistant Editor
Freida Chapman

Advertising Director
Michael E. Monbeck

The Visually Impaired as a Market

for Sensory Aids and Services: Part Two—

Aids and Services for Partially Sighted Persons

ABSTRACT: After discussing the nature of partial sight and setting the number of partially sighted persons in the United States at approximately six million, the authors discuss the specific nature of the needs of such persons for aids and services. The provision of low vision care in the United States is evaluated, as are such specific aids as large print books and closed-circuit television magnifiers. Present technology and medical knowledge are quite adequate, the authors conclude, but there is a lack of public awareness and an insufficient service delivery system.

Most of the agencies and organizations which provide assistance and services for the "blind" have traditionally concentrated their efforts on serving those who have little or no useful vision. Similarly, most of the research on sensory aids has been devoted to assisting such persons in gaining access to printed matter, in traveling, and in performing various activities related to their occupation, education, or daily living in the absence of vision. But even among the severely visually impaired, which includes all of those persons who are functioning as "legally blind," over 75 percent have some remaining vision (Goldish, 1972). Thus, of an estimated 6.4 million persons in the United States with visual impairments, only about 400,000 have no useful vision (Figure 1). In effect, six million partially sighted persons in the United States have gone relatively unnoticed by the blindness system.

□ Partial sight defies precise definition. In practice, partial sight starts where visual capability cannot be adequately restored by routine eye care and it extends to a point at which no useful vision remains (Figure 2). It includes, in part, the acuity range of legal blindness. As a handicap, however, it is related to an individual's need or desires and to his motivation. It is "the point at which the patient becomes aware that his poor acuity has affected his performance so that he thinks of himself as handicapped. It cannot be defined numerically. The definition does not include the word blindness" (Faye, 1970, p. 6). Thus, for

LOUIS H. GOLDISH

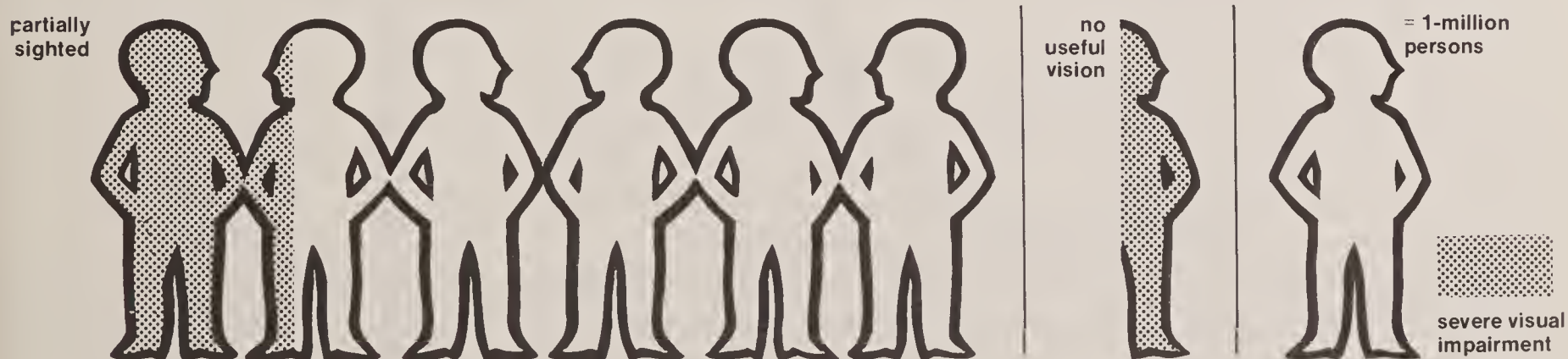
MICHAEL H. MARX

Mr. Goldish, a consultant to the Sensory Aids Development Program of the American Foundation for the Blind, is vice president of Technical Marketing Associates, Concord, Massachusetts; Mr. Marx, a management consultant, is affiliated with Technical Marketing Associates.

What Is "Partial Sight"?

FIGURE 1

The Number of Partially Sighted Persons Compared to Those Having No Useful Vision



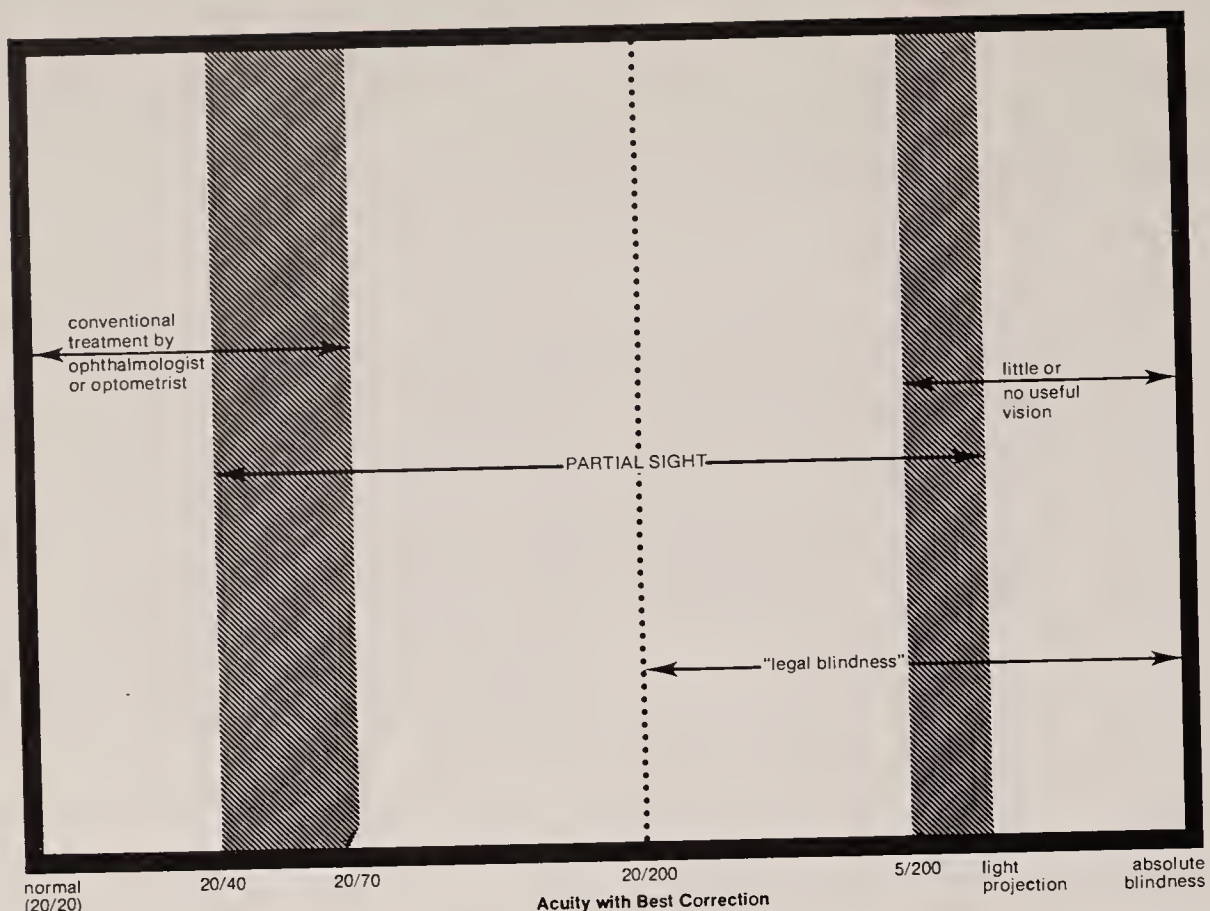


FIGURE 2
The Approximate Bounds of Partial
Sight in Terms of Visual Acuity

two people with the same measured visual acuity, one might be categorized as partially sighted while the other may be regarded as having no useful vision.

Most of the usual activities of daily living do not require full (20/20) visual acuity. A person with lower acuity does not necessarily suffer from limitations in activities. Most people with 20/40 acuity can still read small print or newspapers at a normal reading distance. They can obtain a driver's license in any state. Indeed, if a person does not wish to read or to drive, he may not consider himself to be handicapped even with an acuity approaching that of legal blindness (Figure 3).

Varying limitations

□ When partial sight does become a handicap, the individual will usually choose one of two courses of action: he may either seek professional low vision care, or he may attempt to select a low vision aid by himself. For two out of three people the principal motivation is a desire to increase the ability to read personal materials (Figure 4).

The Need for Aids and Services

The choice of low vision aids is extensive (Figure 5). While the cost of these aids ranges from under one dollar for a simple magnifying glass to almost \$2,000 for some complex, closed-circuit television systems, most of the aids are modestly priced—usually under \$300. Yet, at this time, the actual number of users of these various types of aids or of low vision care is an incredibly small percentage of the total number of partially sighted persons (Figure 6).

Costs

The total population of the partially sighted has almost half of its members between the ages of 25 and 64, an age group which is normally socially and economically independent (Figure 7). The partially sighted, therefore, comprise

a significant market which is relatively accessible. Given the size and characteristics of this group, a much greater emphasis should be placed on the partially sighted as a market for aids and services.

□ Low vision care is more complex than routine eye care. While many partially sighted persons can be satisfactorily treated by only an optometrist or ophthalmologist, in many cases the successful treatment of a patient requires the interaction of other disciplines.

One of the principal factors in low vision care, and often the key to success or failure, is the attitude and the understanding of the patient. Commonly, a patient will have unreasonable expectations; he wants restoration of perfect vision, yet this is impossible. Before a patient can be treated successfully, he must accept the limitations which exist. It is for such a patient that the team approach often found in the low vision clinic, which includes social workers or psychologists, is important. Also, since low vision care is a device-oriented specialty, there is a necessary interaction with the business and technical communities which develop and make available the different types of aids.

Despite the need, only about 43 cities in the United States have facilities which offer comprehensive low vision care, and two-thirds of these facilities are open a maximum of only one day per week. Thus, a mere 15 metropolitan areas appear to offer comprehensive low vision care on a regular daily basis, and even some of these facilities may be forced to close for lack of financial support. This is in sharp contrast to the more than 800 service organizations for the blind distributed among virtually every major city in the United States (Scott, 1966, p. 66).

A number of reasons are cited to explain why low vision care is not more commonly offered by the many optometrists and ophthalmologists in private

Low Vision Care

Low vision clinics

The doctors' dilemma

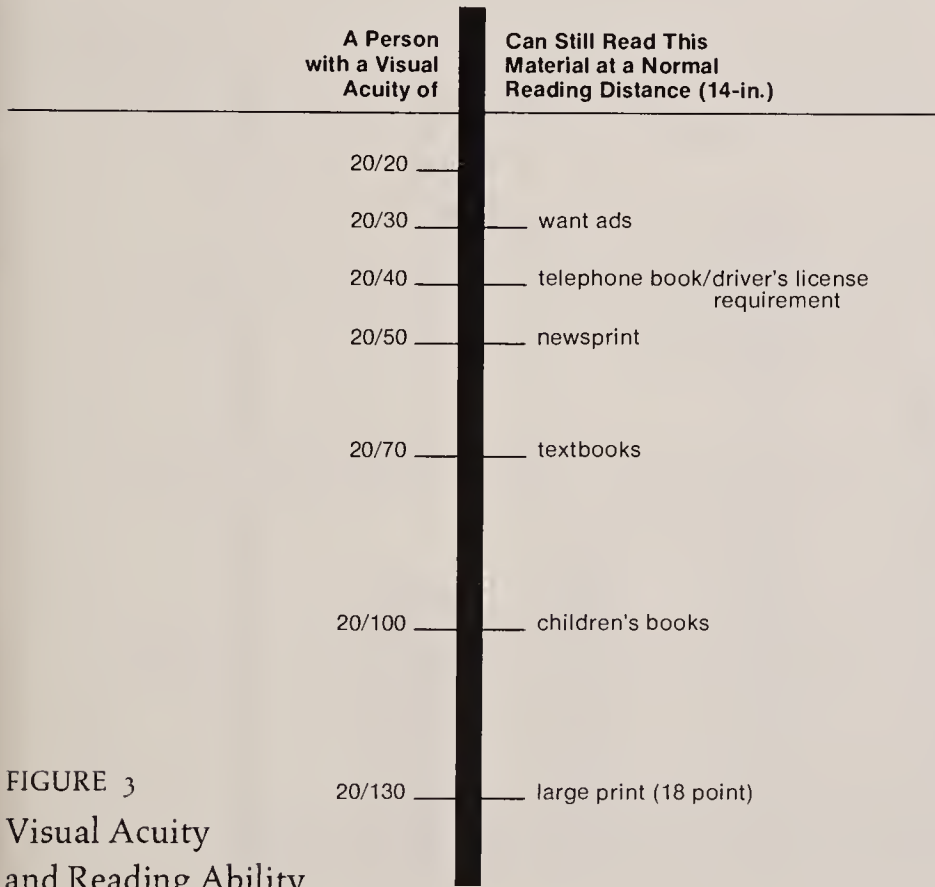


FIGURE 3
Visual Acuity
and Reading Ability

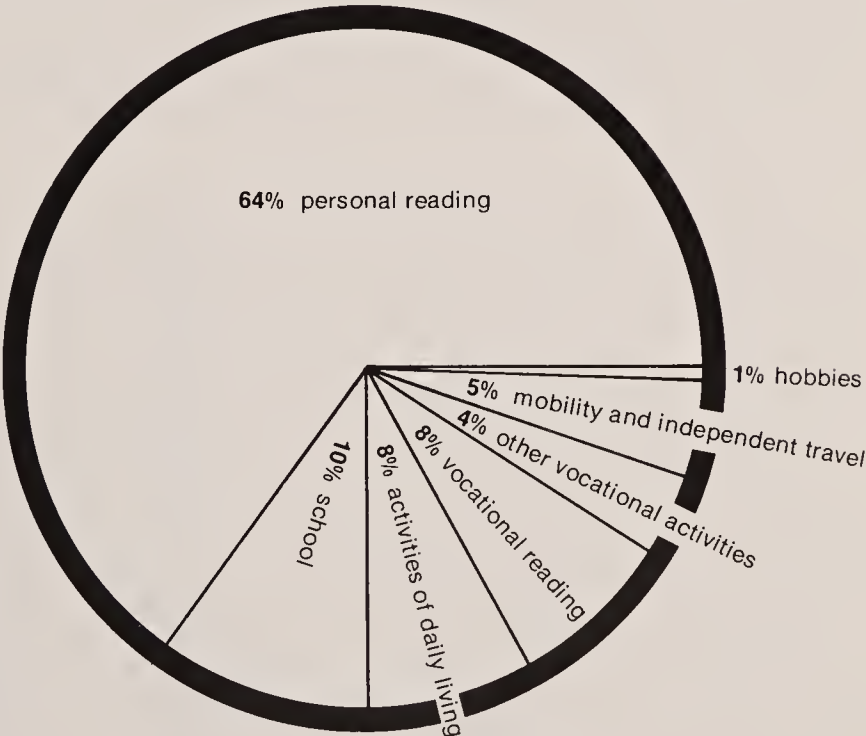
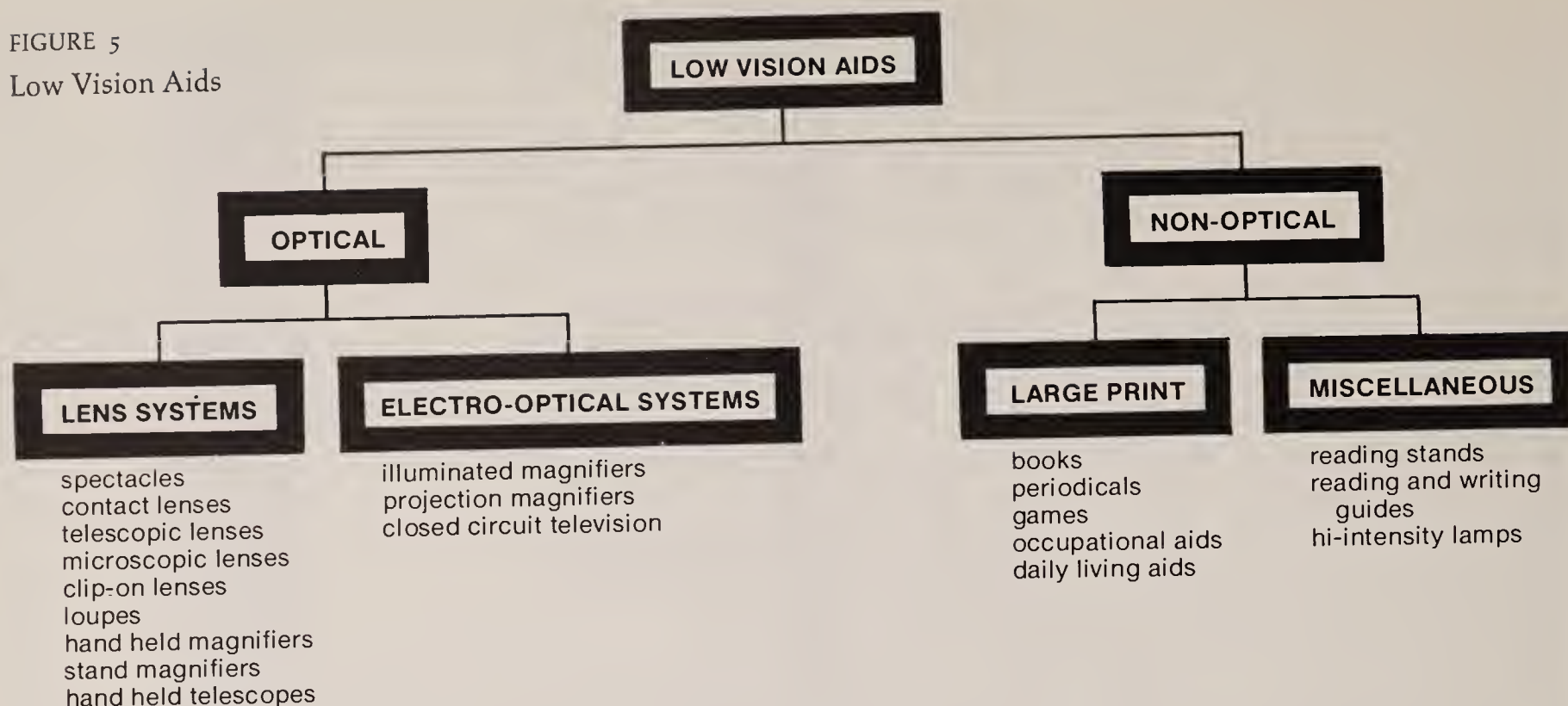


FIGURE 4
Primary Objectives of Low
Vision Care Patients

FIGURE 5
Low Vision Aids



practice throughout the country, including the lack of specialized training in low vision care, the necessary investment of up to \$10,000 in special equipment and additional office space, the time-consuming and tedious nature of low vision treatment, and the greater attention required by low vision patients. The principal reason, however, seems to be insufficient economic incentive. A doctor can see many patients requiring routine eye care in the time he must devote to even one low vision patient. Consequently, fees for low vision care would have to be prohibitively high for the doctor to realize a return equal to that for routine eye care. For these reasons, low vision clinics are currently the principal source of low vision care.

All age groups are well represented among low vision clinic patients, although a disproportionately high percentage of patients are under 25 years old. This is understandable since the emphasis of low vision care is frequently on education or vocational rehabilitation. A very small percentage of low vision clinic patients currently come from lower socioeconomic groups.

Persons with acuities from 20/100 through 20/400 frequently comprise over half the current caseload of a low vision clinic. Significantly, over half of the patients in some clinics are not legally blind. Thus, if low vision services are limited to the legally blind, most of the partially sighted would be excluded.

Typically, better than two out of three patients have been benefitted by low vision clinics, and this has been accomplished using readily available and modestly priced aids. Spectacle corrections currently represent three-quarters of all aids prescribed; the remainder consists mostly of a variety of inexpensive hand-held and stand magnifiers. Electro-optical devices are currently prescribed only infrequently (Figure 8).

The patients

Not all are legally blind

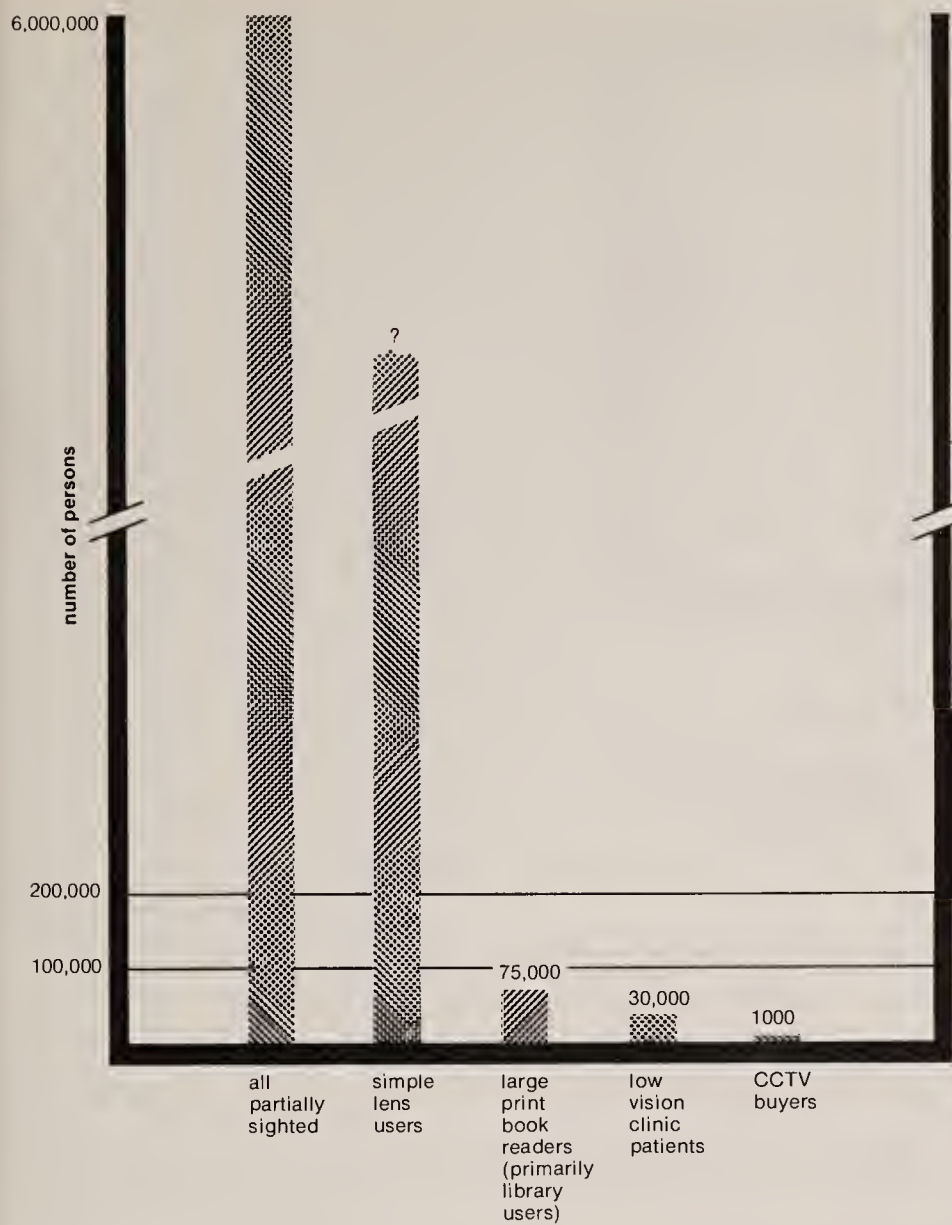


FIGURE 6
Estimated Number of Partially Sighted Persons Using Various Types of Aids and Services

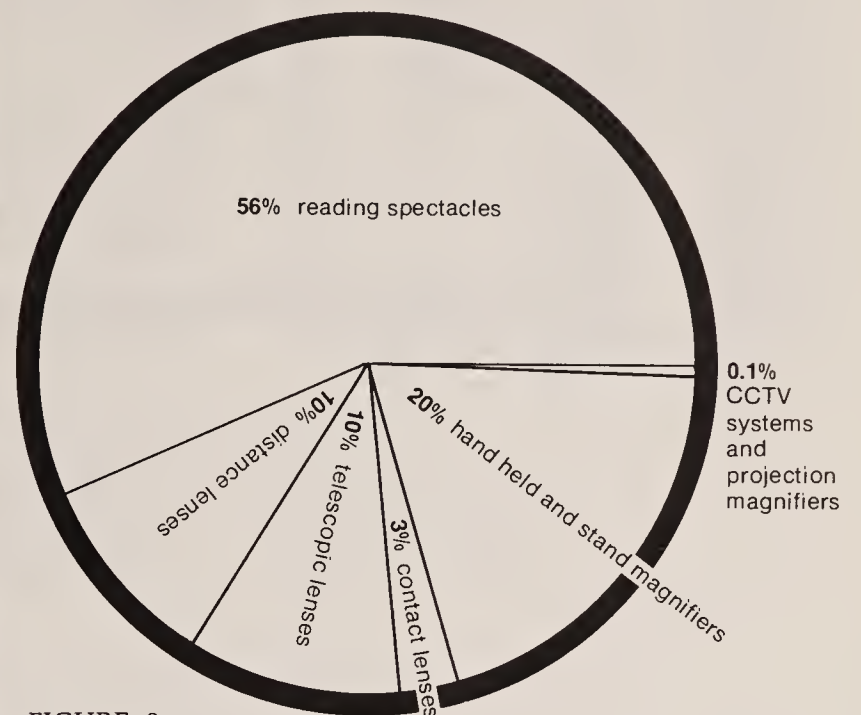


FIGURE 8
Types of Aids Currently Prescribed by Low Vision Clinics

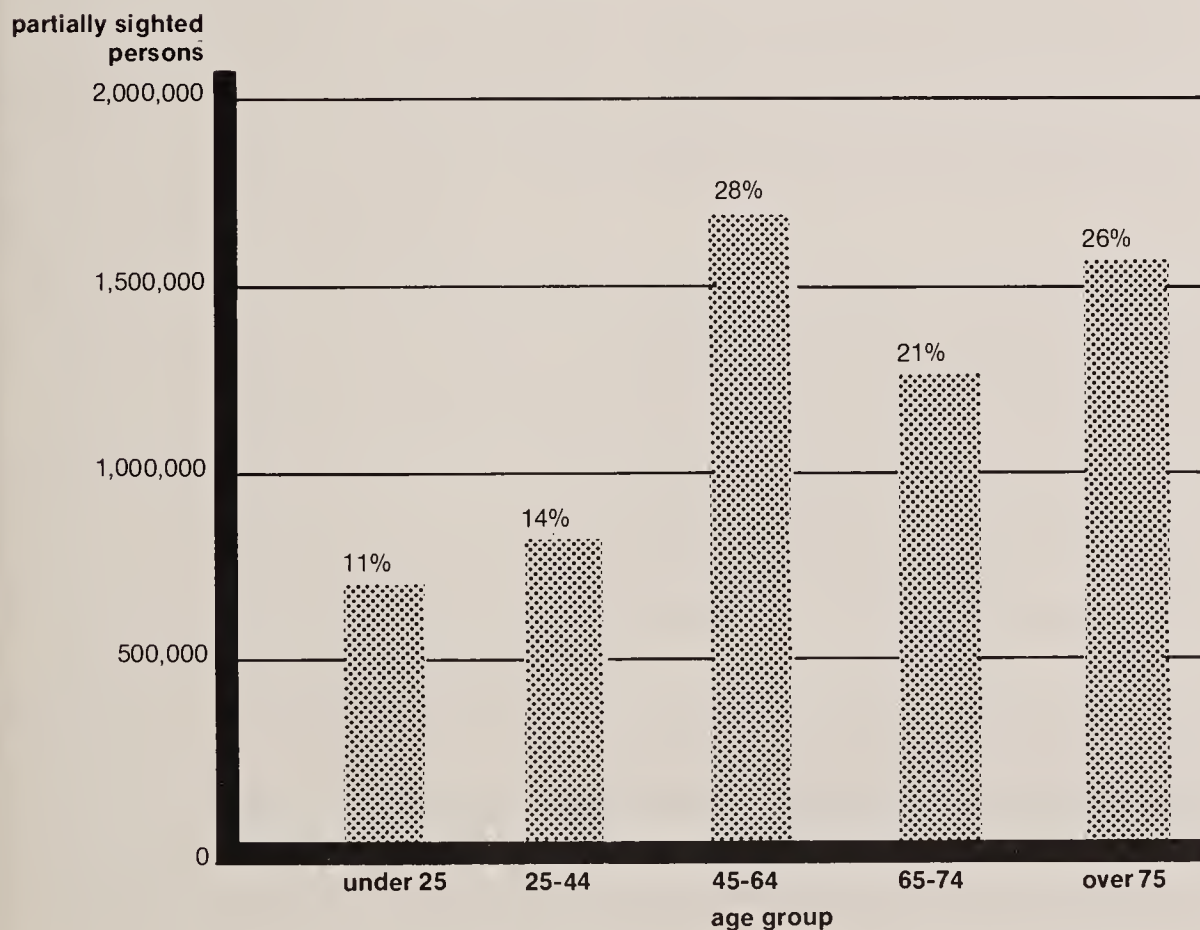


FIGURE 7
Estimated Number of Partially Sighted Persons in Various Age Groups

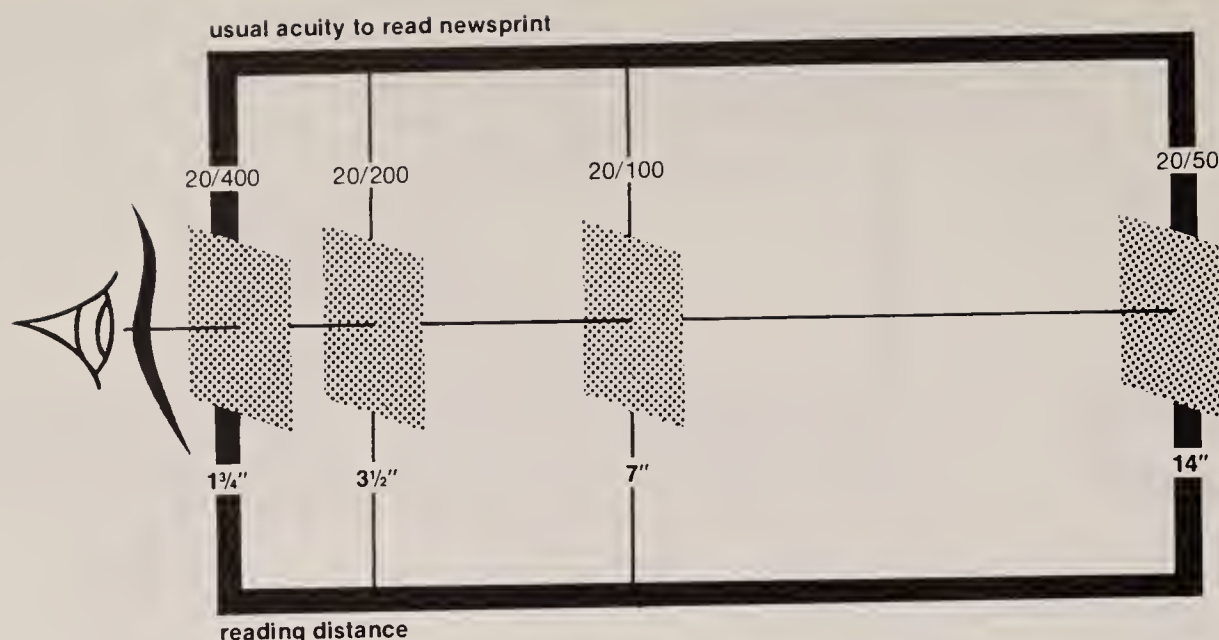


FIGURE 9
The Effects of Bringing Reading
Material Closer to the Eye

□ The production and distribution of large print books was originally handled by a few nonprofit organizations and volunteer groups. These groups concentrated mainly on the children's market, particularly elementary and high school textbooks. Around 1965, articles began appearing in various trade and library journals indicating that there was a very large potential audience for large print publications. Encouraged by these predictions, almost 30 publishers, including virtually all of the major book publishers, began producing large print trade editions. Actual sales, however, proved disappointing. Geared to large press runs, the major publishers were unable to sell more than half of their initial printings.

Large Print Books

The markets

Unfortunately, the early articles failed to distinguish between persons with an occasional interest in large print books and the much smaller group of regular customers for such editions. Older readers, who constitute a significant segment of the potential market, are less mobile and do not frequent libraries or book stores, and the institutions and nursing homes which serve many of these persons usually do not purchase books. In addition, better magnifying devices and improved low vision training techniques which encourage the reader to "magnify" print by bringing reading material close to his eyes have diminished the need for large print (Figure 9).

The nature of these books also contributed to their poor reception. Many editions were oversized, heavy, photo-enlarged versions of regular trade editions. They were clearly distinct from conventional books and more expensive as well. Selections were concentrated among classics and light fiction with few current best-sellers. Book stores rarely carried a selection of large print titles. Thus,

The nature of the books

libraries became the only significant purchasers, and their purchases were limited since large print books are considered a low priority item unless federal funds are specifically designated for such purchases.

As a result, the number of active trade publishers declined as rapidly as it had grown. Today, there are only two large publishers still engaged in the production of large print trade editions. Even with the improved format and content of current new editions, which typically cost about seven dollars each, sales are not likely to exceed 1,000 volumes per title.

□ The function of closed-circuit television (CCTV) as a low vision aid is the electronic enhancement of an image received by a camera and displayed on a television screen. CCTV offers a number of advantages over purely optical systems. The passive optical systems can never produce an image that is brighter or of greater contrast than the objects being viewed, and at higher magnifications—over 16 \times —optical devices create significant distortion and have a very small field. Electronic circuitry in the CCTV system, on the other hand, magnifies an image up to 40 \times , and it is displayed without distortion and with enhanced contrast on a large screen. Reverse polarity—white letters on a black field—has also been a popular feature. In addition, the general arrangement of the CCTV equipment offers a more comfortable reading or writing posture than does a strong lens device.

CCTV devices are, however, relatively expensive and the user must have good manual dexterity. Thus, the principal application for these systems has been for the education or vocational rehabilitation of the user. The cost and limited portability of current CCTV devices has made them generally unattractive when there are reasonable alternatives. This has been particularly so among persons with higher visual acuities.

Today there are seven firms engaged in the production and sale of CCTV systems. All of the current commercially available models are conceptually very similar and incorporate the same basic components. There is, however, some variety in the manner in which the different manufacturers assemble the components so that the customer has a choice with respect to arrangement, flexibility, portability, and accessories.

The current potential domestic market for CCTV magnifier systems is estimated at about 30,000 units. Yet, CCTV as a low vision aid is a difficult item to market. Sales usually are based on a personal demonstration and, with the small market being widely dispersed, marketing costs have been high. Sales of CCTV magnifiers have begun to grow, and the current annual sales are about 725 units per year. Projected sales are on the order of 9,000 units over the next five years (Figure 10). While this represents a significant penetration of the current potential market, this market is expected to increase by about 2,000 persons per year so that saturation will not be a problem unless annual sales of CCTV systems significantly exceed this level.

□ Most partially sighted persons can obtain satisfactory relief from their visual handicap with proper low vision care and relatively inexpensive and simple devices. No dramatic new developments are needed; existing medical knowledge, coupled with available devices, is adequate for treating most cases:

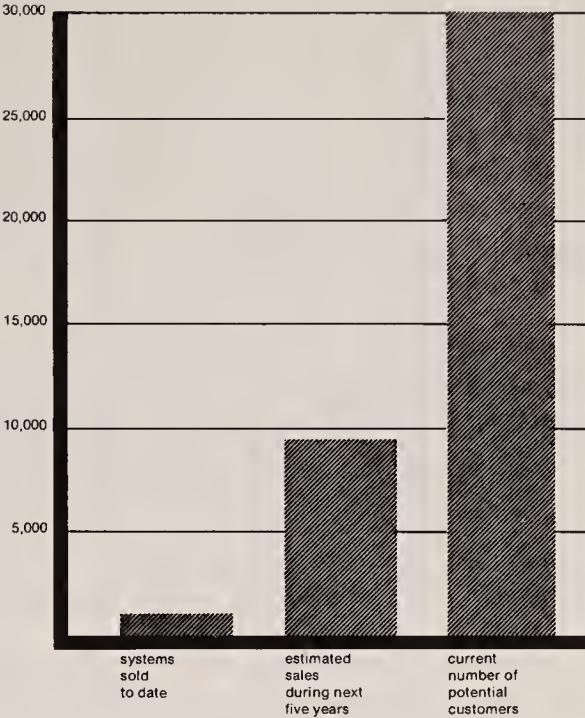


FIGURE 10
The Market for CCTV
Low Vision Aids

High cost

Potential market

Conclusion

Yet, there is a lack of general understanding of the problem of the partially sighted and a need for a better delivery system. A modest effort to increase the general public's awareness of the special problems of the partially sighted and to encourage the eye care community to recognize that low vision patients require specialized treatment can help bring assistance to a large number of visually impaired persons.

Faye, E. E. *The low vision patient*. New York: Grune & Stratton, 1970.

Goldish, L. H. The severely visually impaired population as a market for sensory aids and services: Part one. *New Outlook for the Blind*, 1972, 66, 183-190.

Scott, R. A. *The making of blind men*. New York: Russell Sage Foundation, 1966.

References

Purpose-Built Reading Room at Oxford

The new purpose-built reading room for blind students in the Bodleian Library of Oxford University is the first facility of its type for blind university students in Great Britain. In the past, although a room had been provided for blind students in the Bodleian Library, they were unable to make usable recordings because of the acoustic properties of the room.

□ In July 1972, Harold W. Snider, a blind American postgraduate student at the University, initiated the idea of a purpose-built reading room for blind students. His ideas were based on similar facilities available to blind university students in the United States.

Harold W. Snider

Construction began in December 1972, after a short and successful fund drive, and the room came into use in April 1973. The room contains four sound-proof cubicles in which blind students can make tape recordings of their readers. These cubicles contain such equipment as braillewriters, tape recorders, a manual typewriter, and an electric typewriter.

The purpose-built reading room is of particular importance to the blind students at Oxford since the University libraries are not lending libraries. Blind students had not previously been able to use materials satisfactorily.

□ The Blind Students' Reading Room Fund is administered by the Bodleian Library with the help of a consultative committee who can provide necessary expertise. The committee consists of one blind member of Oxford University, Bodley's librarian, a representative of the Royal National Institute for the Blind, and an outside person selected by the other members of the committee.

Reading Room Fund

Transfer of Learning from School Setting to Life Style in a Habilitation Program for Multiply Handicapped Blind Persons

ABSTRACT: Skills and concepts learned in a structured teaching situation are not automatically transferred and used in the daily lives of multiply handicapped blind persons. An important step in an effective transference is the careful assessment of a student's capabilities for independence. Based on this assessment, the student works under the guidance of a habilitation specialist to develop specific skills and concepts. The student is encouraged and is given frequent opportunity to apply what he has learned in actual life situations. His communications, mobility, and practical arithmetic skills, for example, are used when the student, with the specialist's help, does his own banking, shops for his personal needs, and holds a part-time job. In this way, when the student leaves the teaching situation he is already familiar with the demands of a daily life situation.

The Learning Center for the Visually Handicapped, which is sponsored by the Protestant Guild for the Blind, Inc., in cooperation with the Massachusetts Commission for the Blind and the Massachusetts Department of Special Education, was created in March 1970 to fill a gap in existing services for blind persons in New England. The goal of this residential program is to provide full habilitation services for multiply handicapped blind adolescents and young adults. Of the original student population of ten, nine students were formerly at the Walter E. Fernald State School and one was a drop-out from Perkins School for the Blind. Eight of these were receiving custodial care in an institution and two were living in extremely sheltered home environments. The Learning Center program was designed to help these students achieve their maximum level of self-sufficiency in personal care, care of their immediate environment, social and community situations, independent travel, and work.

□ The environment in which these students have been found to learn most effectively and to continue to function with maximal independence is one in which all teaching, residential, and supporting staff cooperate in: 1) allowing and encouraging each student to do for himself what he can; 2) reminding and helping each student with tasks and responsibilities he is learning; and 3) providing for the needs of students in areas in which they have not yet gained any skill. The entire staff functions as a team in evaluating students' potential and progress and in planning for their needs.

The visual and other physical disabilities of most of the 27 students served by the program, as of June 1973, are lesser handicaps than brain damage or mental retardation. Skills and concepts mastered in a structured teaching situation are not automatically transferred and used in the daily lives of these multiply handicapped students. The Learning Center employs habilitation assistants with some competence in all areas of the program to help students

BILLIE LOUISE BENTZEN

Mrs. Bentzen is supervising teacher and peripatologist, Learning Center for the Visually Handicapped, Protestant Guild for the Blind, Watertown, Massachusetts.

Goals of the Center

The Learning Environment

integrate new skills and concepts into their daily lives in meaningful ways.

□ Independent personal care is a basic requirement for habilitation. The habilitation assistant begins work when students rise in the morning. He records the performance of all students in morning personal care skills, and provides either personally or through residential staff for the amount of reminding, encouragement, or help each student needs at his current level of development.

Habilitation Assistant

Instruction in personal care at the Learning Center begins with bathing, dressing, and tooth brushing. Students needing instruction in these areas receive individual attention and have time to practice personal care tasks during the school day as well as at the more stressful times of the day when these tasks are normally performed. The habilitation assistant provides some of the basic instruction personally, and communicates further needs to other staff members for follow-up. As each student learns a new skill, the habilitation assistant sees that he utilizes it effectively in the appropriate context.

Independent personal care

The residential staff is kept informed of students' progress so that, for example, when a student has mastered hanging his clothes on hangers in a structured teaching situation, he is then required to hang up his clothes when he brings them back from the laundry. Complete transfer usually requires that, for a time, residential staff remind and help the student with his new skill. Later, a period of reminding may be necessary before the student automatically uses the skill in the appropriate context and is expected and required, for example, to keep his clothes hung neatly in his closet at all times.

More advanced living skills include eating skills, care of clothing, room care, basic cooking and nutrition, and home maintenance. Each student's program is based on regular assessment of his probable maximum level of functioning. All students do not, therefore, receive instruction in all these areas. The habilitation assistant helps integrate new skills into students' lives through doing such things as helping them obtain the kinds of clothing they can wear and care for independently (e.g., all permanent press), scheduling them for doing their own laundry, and organizing students' belongings so they can then care for them independently.

Advanced living skills

□ Students are helped to develop some marketable skill for either competitive or non-competitive employment. Each student spends part of each week in a workshop where he develops necessary hand skills, concepts, work habits, and attitudes. Activities in which students are involved include simple contract jobs, hand and machine cutting, assembly and finishing of wood and metal products, and individual student projects. As each student develops useful skills and good work habits and attitudes, the habilitation assistant arranges for him to work part-time at the school, in such jobs as dishwashing and pot washing, doing household laundry, assisting with meal preparation, or assisting the maintenance department. Each student is paid a realistic wage for the work he does. Such things as lateness, not finishing the job, breakage, or asocial behavior on the job result in reduced pay.

Marketable Skills Development

□ Only five of the 27 students served by the Learning Center to date have entered the program with more practical arithmetic knowledge than identity

Practical Arithmetic

of coins, counting to about 100, and addition. It is not expected that most students will develop sufficient skill or understanding to be completely independent in budgeting and spending their own pay. However, minimum long-range goals for each student in arithmetic are that they make simple purchases for themselves, giving either the correct change or the "nearest amount over," and that they have a sufficient understanding of the concept of time and some means of telling time, so they can organize their lives well enough to be at work and meals on time. Specific skills related to these goals are taught in a classroom setting.

It is the responsibility of the habilitation assistant to make new skills in arithmetic functional in each student's life. Students need very personal help in recognizing and managing their financial responsibilities. Out of their weekly pay checks, they are expected to provide for their own personal needs, purchasing for themselves such items as soap, toothpaste, laundry, clothes (to the extent that they can afford them), and treats. Parents are discouraged from meeting all these responsibilities for students. Initially, the habilitation assistant helps each student name all the things he needs and to see whether he has them or needs to buy them. According to his level of understanding in arithmetic, the assistant helps each student anticipate the cost of each item he needs for the coming week and to decide, out of his weekly pay check, how much money he should get in cash and how much he should deposit in his savings account.

The habilitation assistant goes to the bank weekly with each student who still needs help. He teaches the student appropriate behavior in the bank (avoidance of mannerisms, talking softly and appropriately, and being polite), the physical lay-out of the bank being used, and the verbal and physical mechanics of cashing a check and depositing money in or withdrawing it from a savings account. After banking, the assistant arranges for each student to shop for his own needs, helping him remember which things he needs to buy, deciding where to shop, getting to an appropriate store, anticipating the cost, deciding what coins or bills to pay with, getting money out of a wallet, interacting with a sales person, anticipating change, getting change into a wallet, and carrying his own package back to school.

☐ The ability to travel independently and safely in indoor and outdoor environments is essential to habilitation of blind persons. It also facilitates the care that must be provided to multiply handicapped blind persons whose limitations do not permit their eventual placement in independent living and competitive working situations. Instruction by an orientation and mobility specialist is therefore provided for all students. New travel skills and routes must also be integrated into students' life styles to be useful.

In this connection, it has been found very helpful to train the habilitation assistant in basic orientation and mobility techniques so that as he supervises their independent banking and shopping, he can enforce high mobility standards and report to the orientation and mobility specialist on the effectiveness and safety of each student's travel. This ensures that students do not form bad habits and that remedial instruction is provided when needed.

Financial responsibility

Personal needs

Banking

Shopping

Independent Travel

Mobility learning reinforced

As students learn routes to useful objectives such as the bank, drugstore, barber shop, and dry cleaners, the habilitation assistant arranges for them to take regular independent trips to these objectives to reinforce their learning. The assistant cooperates with the mobility specialist in intermittently observing these independent trips to see that students continue to be safe and effective travelers.

□ Minimum goals for students in communication skills are that each should be able to carry on a logical conversation, follow directions, be polite, write down or tape record and read or play back a name or telephone number he needs to remember, use the telephone independently, and write a legal (if not actually legible) signature. The habilitation assistant and residential staff follow up on the work of classroom teachers by having students use these skills in actual living situations such as telephoning friends, taking messages, and signing their own checks. The habilitation assistant also helps students provide themselves with needed tools such as paper, pen, and tape recorders.

□ Since the habilitation assistant is responsible for transferring students' learning from a school and workshop setting to a life style, he plays an important role in recommending vocational and residential placement appropriate for them upon leaving the Learning Center. He has the broadest experience with students' actual use of what they have theoretically learned in a structured teaching situation and is best able to evaluate placements in terms of students' probable over-all performance in new situations. In some situations he is also able to help in on-the-job training of students when they leave the school, and to help organize the residential arrangements for former students so that they will be compatible with and continue to promote and reinforce the students' highest level of functioning.

□ The Learning Center for the Visually Handicapped fosters transfer of learning from the school setting to a life style for its students through the use of a habilitation assistant. This person maintains close communication at all times with all teaching, residential, and supporting staff of the Learning Center to ensure transfer of learning for all students. He observes students and relates directly to them in all types of daily living situations. He informs other staff members when students in actual life situations are or are not able to use what they have learned in a structured school setting. Other staff members utilize his observations in deciding what to teach and reteach each student.

The habilitation assistant also learns from other staff members what they are teaching each student and what each student should be able to do independently so that he can find opportunities for each one to utilize each new skill regularly in his daily life. Thus students are deliberately and conscientiously helped to transfer learning from the school setting to their life styles.

Communications Skills

Placements

Actual living situations

Summary

Utilizing new skills

The Five-County Vocational Skills Training Program, 1970-1972

ABSTRACT: After reviewing the historical basis for the modern trend toward integrating visually handicapped students into vocational skills training programs in the public schools, the authors describe a three-year program in California in which a skills specialist experienced in teaching visually handicapped students aided the regular vocational skills teacher. Four brief case studies are presented to illustrate the operation of the program. Observations on the success of the program and recommendations for similar efforts are included. An appendix to the article lists the specific goals and objectives of this program.

Five counties in California recently offered a new and unique approach to the enrollment of visually handicapped students in the areas of industrial arts, home economics, and distributive education. While the Five-County Vocational Skills Training Program has been terminated because of a lack of funding, the project itself was not a failure in terms of project goals and objectives (see Appendix) and the cooperation extended to the project staff. Thus a review of the project and its historical base is justified at this time.

□ "The beginning of organized work for the blind in America is usually set at 1828, the year in which the Massachusetts legislature passed a bill incorporating the New England Asylum for the Blind" (Scott, 1969, p. 122). The doors of the Asylum (later called Perkins School for the Blind) opened to students in 1832, leading the way for other states to follow; soon there were dozens of residential schools for the blind throughout the eastern United States.

As students graduated from the schools for the blind, they encountered difficulty in securing employment. In an effort to remedy this problem, Scott (1969) states that:

. . . residential schools began to build their own workshops, in which they trained their graduates for industrial employment. Perkins opened a workshop in 1840; the New York Institute followed suit in 1845. . . . In addition, many other states that did not have residential schools began to support workshops and other special facilities for employing the blind (p. 123).

The employment training in these workshops generally took an accommodative approach in the use of equipment specifically adapted for the blind worker. Work tasks, and even the entire method of production, were engineered with the disability in mind, so that there was little resemblance between an average commercial industrial setting and the workshop. Indeed, the blind worker acquired skills and methods of production that probably were unknown in most commercial industries (Scott, 1969, p. 85).

In addition, the blind were subject to questionable personnel practices. Jobs of a menial or repetitive nature were more often than not assigned to the blind

GENE H. RUSSELL, Ed.D.
DAVID M. BUTLER, M.A.

Both authors were head teachers, Dr. Russell in 1971-1972 and Mr. Butler in 1970-1971, of the Vocational Skills Training Program, Santa Cruz County Office of Education, Santa Cruz, California.

Historical Basis

Workshop training

worker. Little effort was made to exploit the capabilities of the blind (Myers, 1963, p. 255).

As early as 1836, there were writings on blind children in the use of their hands. Johann Wilhelm Klein, one of the founding fathers of the education of the blind movement, wrote that the hands are of special importance to the blind child (1971a).

They must replace to a large extent his eyes and their neglect during childhood can later be made up only with difficulties, if at all. . . . Therefore, it is urgently necessary to motivate the blind child as early as possible to make use of his hands. . . . Furthermore, one should not be too afraid to let him use knives and other tools with his hands, just as soon as other children, of course with the necessary caution, and one should also let him cut, hammer, etc. (p. 234).

"Most tools and instruments which man has devised to make his activity easier and more efficient were developed with the idea that the user would have good eyesight" (Thompson, 1963, p. 237). Thompson, a contemporary authority on skill development for blind veterans, states that because of the infinite number and variety of tools, instruments, and materials it is 1) impossible for a blind person to handle most of them by normal means, and 2) not practical to make all of them in special ways for people who do not see. Therefore, changed techniques are required (pp. 237-238). This premise is also advocated by Richard R. Friend of the New Jersey State Commission for the Blind. Friend (1963) indicates that "a technique is transferrable from one set of circumstances to another, whereas a special device may not be" (p. 257).

□ "It has long been the philosophy in California that blind youngsters should have the opportunity to participate in integrated instructional programs" (Marsh and Friedman, 1972, p. 426). Johann Wilhelm Klein was convinced that the only solution to the problem of providing education for all blind children was in their placement in local public schools. In 1845 he wrote the following:

Only if the blind are educated and occupied within their own families and instructed in the schools of their home communities will it be possible to provide for *all the blind* a level of education that is suited to their circumstances (1971b, p. 239).

Blind students enrolled in public school programs receive their education from regular teachers but receive, in addition, supplementary teaching services which may include a full-time special or resource teacher, special instructional materials and equipment, and counseling and guidance (Marsh and Friedman, 1972, p. 426). It is currently estimated that in California, at least 90 percent of the blind and practically all of the children identified as partially seeing are educated with nonhandicapped children in the public schools (Misbach & Sweeny, 1970).

In the establishment of an exemplary or innovative endeavor, there is often a burst of creative or intuitive energy resulting in new insight and thinking regarding an old problem. The proverbial problem of building a better mouse-trap comes to mind, when, with some creative brainstorming and thinking, we might arrive at the superior idea of building a better mouse. Although this may appear to be far-fetched, the numerous innovative curriculum projects in vocational education are an indication of the concerted efforts to improve a situation

Use of hands

Tools vs. techniques

Integration

Modern innovations

by concerned school districts, state departments of education, and institutions of higher education.

In regard to the visually handicapped, new thinking and strategies were necessary to create the opportunities to allow blind and partially sighted students to enroll and participate in career and vocational education activities. A variety of vocational classes have been available to sighted students in public schools since the turn of the century but not generally to students with vision problems.

□ The answer for the visually impaired in the Five-County Program resolved into a choice of one of the following four alternatives:

(1) *No skill development.* This "technique" has been used with some success by both public and private agencies. The blind were encouraged and often subsidized to secure professional training because the agency "did not know what to do with the applicant and a four-, six-, or eight-year college stay was a device to avoid the problem at hand" (Yoder, 1963, p. 319).

(2) *Self-contained vocational class.* In school districts, counties, or states where there are groups or sufficient numbers of visually handicapped students, the establishment of a self-contained vocational class could be considered. This arrangement allows four blind students to receive semi-individualized instruction from an instructor in a setting without other students present.

(3) *Integrated program without assistance.* This approach would have the visually handicapped student receive vocational training in regular classrooms from regular industrial, home-making, or business and distributive education teachers. "The education and training of visually handicapped children for employment must follow basically the same objectives and the same methods as do the modern occupational and vocational curricula for the sighted" (Cadwalder, 1964, p. 173). Supplementary teaching services may be provided, when available, by a resource teacher who may even elect to "take the class" and learn along with the student.

(4) *Integrated program with assistance.* The creation of a program that integrates the visually handicapped with sighted students can be facilitated when a trained skill specialist is present to supplement the regular teacher's instruction immediately after a demonstration or presentation. A vocational skill specialist for the blind and partially sighted is trained in non-visual teaching techniques.

□ A survey of 51 industrial arts teachers selected at random from Monterey, San Benito, San Mateo, Santa Clara, and Santa Cruz counties was conducted in 1968. From the findings of this survey, it was concluded that 1) blind students were not then participating in industrial and vocational classes at the high school level in the five-county region, 2) industrial and vocational educators would, more than likely, allow a visually handicapped student who expressed a real desire in the subject area into their classes on at least a trial basis, and 3) trained skill specialists could alleviate or at least reduce many of the fears and attitudinal problems that might conceivably arise with a regular vocational instructor working with a visually handicapped student for the first time.

With the results of the survey at hand, an initial proposal was prepared based on the concept of a trained skill specialist using the itinerant approach of working with visually handicapped students enrolled in regular pre-vocational and

Creating opportunities

Four Alternatives

Survey of Industrial Arts Teachers

Specialist to use itinerant approach

vocational classes in a public school setting. A March 1969 meeting with Santa Cruz authorities resulted in solidification of ideas and strategies for implementation of the project.

Authorization was needed, however, to allow for the employment of the needed vocational skill specialists for the blind. Legislation to amend the California Education Code was introduced into the State Senate and on August 28, 1969, Governor Ronald Reagan signed Senate Bill 632 which "provided for the employment by districts or counties of vocational skill specialists for blind students so that they might be enrolled in technical and industrial courses, business and distributive education programs, and home-making at the junior high, high school, and community college" (Struck, 1970, p. 1).

Following a meeting with representatives from the five-county school's offices, an application was prepared using the guidelines and forms of Section D (Exemplary Program and Projects) of the Vocational Education Amendments of 1968. The application, co-authored by Richard Struck and Larry Edler, was submitted to the California State Department of Education on November 26, 1969. Notification of the approval of the application under the provisions of Part B (State Grant Programs) was received on January 22, 1970, with an initial grant of \$14,776.

□ The actual operation of providing direct services was similar to the approach of the itinerant mobility instructor. A schedule was set up so that the skill specialist was present each time the visually handicapped student had his vocational class. At this point, the following brief case studies can serve as typical examples of the project operation procedures.

Student No. 1, George C., light perception in left eye (retrolental fibroplasia), senior in high school, integrated into an auto mechanics class. During the first week, George was given basic orientation instruction such as the work station, tool location, lecture room, and material storage. The regular classroom teacher was also given fundamental orientation and mobility instruction. The next few weeks were spent on the disassembly and reassembly of a small four-horsepower, four-stroke gasoline engine. Again the regular classroom instructor received in-service training from the skill specialist during class, between class periods, after school, and whenever convenient time existed. By mid-semester, George had completed the small gasoline engine project, a single-barrel carburetor assembly, and a generator assembly unit; all successful units with very little curriculum modification. All his written work, including study units, were transcribed into braille and tests were taken on schedule and passed with above average scores. By this time the skill specialist was visiting only five of every ten school days as the regular instructor could supervise George with the normal student-teacher ratio of individual help. With approximately six weeks of school left in the semester, the skill specialist acted as a consultant to the regular classroom instructor providing in-service training on a once a week visitation schedule. George received an "A" for the course, while the regular teacher gained poise and confidence in teaching of visually handicapped students.

Student No. 2, Mike S., light perception in both eyes, blind two years from chemical burns, junior in high school, integrated into a woodworking class.

Special legislation required

State grant received

Case Studies

Auto mechanics

Specialist became consultant

Woodworking

Orientation instruction was given to Mike concerning layout of the laboratory, tool and material location, as well as a basic hand-tools demonstration and knowledge test. Although Mike was a good student academically, he was not yet a proficient braille reader as he was just then receiving instruction for the first time. After two weeks Mike could use the braille ruler and other braille devices necessary in woodworking. As his first project, Mike built a footstool using hand tools only. The classroom instructor was also getting in-service training and was responding well to the non-visual techniques. By mid-semester Mike had qualified to use the wood lathe and made several bowls of a salad set and was extremely proficient and independent with the set-up and tear-down of the lathe. The instructor was duly impressed and very cooperative. Mike's final project was a stereo speaker cabinet set. This required the use of almost all the other machines in the shop including the table saw, jointer, and surface planer. The regular classroom teacher was able to provide all the necessary instruction for Mike without over-extending time with Mike and neglecting the other students. Mike received a grade of "A" and signed up for advanced woodworking for the following year. The instructor approved without hesitation.

Student No. 3, Peggy D., no light perception (retrolental fibroplasia), junior in high school, integrated into a family life education class. Peggy enrolled in this home economics department class because it offered the opportunity to learn about caring for infants as well as other household activities. A certain amount of instruction was conducted in the home which provided the parents with an opportunity to see achievement. Peggy initially knew nothing about holding babies, diapering procedures, feeding, bathing, and other routine tasks. By the semester's end Peggy had gained a level of confidence and knowledge so that she was competent in the area of child care. One of the interesting parts of Peggy's instruction was the volunteer work of a pregnant mother who came to school before and after the birth of her child to share in the lesson plans.

Family life education

Student No. 4, Jane D., (retrolental fibroplasia), senior in high school, integrated into a foods class. Jane was a well liked student who excelled academically but knew very little about cooking. The regular classroom teacher maintained certain prejudices which were not entirely changed by the skill specialist nor the evidence of Jane's success in the classroom. The parents realized Jane's abilities and potential as many home lessons were given by the skill specialist. In the final analysis, Jane achieved the objectives of her class and garnered the highest academic grade in the class. In addition, her mother was so impressed with her daughter's progress that she taught Jane how to iron.

Foods class

These brief capsules of case studies indicate that there is a need to provide this aspect of education and that more opportunities to provide in-service training to the classroom teacher are necessary. It is important to note that the level of knowledge of the vocational subject area of the visually handicapped student was appallingly "low" and the level of attainment was in the range of "average" to "high," to say nothing of the distance the visually handicapped student had to travel academically compared to his nonhandicapped classmates.

☐ In a retrospective review of the project's activities and endeavors, it is possible to draw the following conclusions:

Conclusions

(1) *Visually handicapped students can be successfully integrated into regular programs.* In terms of development and achievement, during the 1970-1971 school year, for example, none of the 12 visually impaired students in the vocational skills program received less than a "C" grade in any vocational or industrial education class. The students were graded by the regular teacher based upon the same performance tests, written tests, and attendance marking system as the sighted students were. Thus, these were not token grades. That the visually handicapped are participating in business education is also of significance and indicative of the possibility that this vocational area does not need sophisticated curriculum materials and highly trained skill specialists. As skill specialists are extremely few in number, even nationwide, it is encouraging that regular business education instructors can integrate visually handicapped students into their vocational programs without large amounts of in-service instruction.

Students did well

(2) *Regular vocational educators will enroll blind and partially sighted pupils if they receive in-service training.* The need for in-service training of the vocational educators may be due in part to the increased considerations for vocational education for all people and the emerging aspirations of handicapped students. In any event, the regular instructors participating in the vocational skills project tended to overcome their fears and anxieties about assisting the visually handicapped student as the school year progressed. In certain situations, however, the attention to the sighted students' needs left little time for the regular instructor to observe and perfect the techniques used by the skill specialist in allowing the visually limited student to function in the laboratory or classroom.

In-service training is essential

(3) *Prospective educators need additional expertise.* Prospective vocational education teachers should be made aware of the possibility that handicapped students will be enrolled and will participate in career education programs in ever increasing numbers. Presentation and discussion of the methods and techniques used in working with the handicapped should be pursued in undergraduate classes, field trips, and seminars. Colleges and universities that train educators of the handicapped should also devote additional attention to vocational education methodology.

Training for future teachers

(4) *Alternatives to funding vocational training programs for the visually handicapped are needed.* The fact that ten percent of each school district's Vocational Education entitlement under the Amendments of 1968 (P.L. 90-576) must be utilized for vocational education of the handicapped is well known by teachers and administrators. But because of improper use of these funds and the inadequate amount of state support generally available, consideration should be given to alternative resources such as departments of rehabilitation and social welfare. Both have a vested interest in identifying, training, and providing financial support for blind minors and adults and both departments are concerned that all visually handicapped persons live meaningful lives and are productive. Participation by one or both of these agencies should not be regarded as interference with the mandate of the public school system, nor should the infusion of rehabilitation and social welfare dollars be regarded as supplanting public school funds.

Alternative funding is needed

(5) *A clearinghouse for career and vocational materials is desired.* There should be a clearinghouse for career and vocational materials for the handi-

A clearinghouse for materials

capped, possibly on the state level. This office would locate, publish, and disseminate information, literature, and curriculum materials that have been prepared for the handicapped. Future, as well as present, vocational teachers and administrators need to be informed of the resources available in efforts to assist all students in career education.

(6) *Career education should be encouraged.* The assimilation and implementation of concepts and model plans from the 1) U.S. Commissioner of Education, 2) National Advisory Council for Vocational Education, 3) California Career Education Task Force, and 4) American Foundation for the Blind National Task Force on Career Education should be encouraged. The pronouncements from Commissioner Marland and the three listed groups concerning the preparation of students for employment are intended for vocational and non-vocational educators alike.

□ Further efforts of a research/exemplary nature concerning the visually handicapped and vocational education, including a follow-up study of the teachers and visually handicapped students who participate in this project, ought to be conducted. The specific guidelines for the project's organization and implementation and curriculum guides for instructors in the areas of industrial arts and home economics were prepared for publication. Information about these guides may be secured from the Santa Cruz County Office of Education, 701 Ocean Street, Room 200, Santa Cruz, California 95060. The use of these four documents and the follow-up study are needed in order to help determine the overall impact of the Vocational Skills Training Program.

□ The development of a vocational training program for visually handicapped students has long been a goal of educators of the blind and partially sighted, parents, and others concerned with the dependency and lack of self-respect which is part of the lives of the unemployed and untrained. The Vocational Skills Training Program was a combined effort of five counties cooperating in a three-year exemplary project to provide the integration of visually handicapped pupils into existing pre-vocational and vocational programs. In terms of the commitment which was made to the project in the five-county area, is the concept of using itinerant skill specialists a possible solution to your questions concerning the vocational education of the visually handicapped?

1. Goals:

- a. Vocational educators will acquire the necessary methodology and technology to allow visually handicapped students to participate in regular vocational education classes.
- b. The visually handicapped student will realize new vocational choice opportunities through newly found skills easily adaptable in today's business, home economics, and trade industries.
- c. Vocational educators will have access to a curriculum guide to assist their implementing and replicating a similar project.
- d. Vocational teachers and/or counselors and teachers of the visually handicapped will view a prepared visual presentation about the project.
- e. Educators will have access to a research or evaluation document of the efforts made toward attaining the project's goals and objectives.

Program implementation should be encouraged

Project Guidelines and Curriculum Available

Summary

Appendix

2. Objectives:

- a. Provide in-service training for vocational education instructors now serving sighted pupils so that they will have an understanding of the capabilities of the blind and partially sighted and also acquire the skills and attitudes which are part of successful curriculum planning and instruction of these pupils.
- b. Provide 100 per cent of all eligible blind and partially sighted pupils attending the public and private schools in a contiguous five-county area in California with an opportunity to participate in the on-going vocational education programs previously closed to them.
- c. Provide the specialized equipment and supplies needed for the instruction of the visually handicapped as they progress from the use of simple hand tools to the use of power tools, office equipment, and major kitchen appliances.
- d. Provide the pupils enrolled in the program with vocational counseling, program planning, work experience opportunities, and supervision.
- e. Provide pupils terminating their educational program with job placement services.
- f. Develop a model for replication in other parts of the state and the United States utilizing the systems analysis approach in generating curriculum, setting goals, budgeting, and generally establishing program effectiveness, accountability standards, and program evaluation.
- g. Develop slide and video tape presentations about the project.
- h. Conduct research and develop an evaluation document.

Cadwalder, D. D. *Education, training, and employment of the blind*. Pittsburgh: Western Pennsylvania School for the Blind, 1964.

Friend, R. R. Training aids and teaching techniques in metalworking. In *Proceedings of the International Congress on Technology and Blindness*, pp. 257-273. New York: American Foundation for the Blind, 1963.

Klein, J. W. Guide for a suitable treatment of blind children from their earliest youth on in the circle of their families and in the schools of their home communities. 1836. Reprint. Translated by Berthold Lowenfeld. In *Blindness 1971*, pp. 232-237. Washington, D.C.: American Association of Workers for the Blind, 1971a.

Klein, J. W. Guide to provide for blind children the necessary education in the schools of their home communities and in the circle of their families. 1845. Translated by Berthold Lowenfeld. In *Blindness 1971*, pp. 238-242. Washington, D.C.: American Association of Workers for the Blind, 1971b.

Marsh, V., & Friedman, R. Changing public attitudes toward blindness. *Exceptional Children*, 1972, 38, 426-428.

Misbach, D. L., & Sweeney, J. *Education of the visually handicapped in California public schools*. Sacramento: California State Department of Education, 1970.

Myers, I. L. The use of techniques to replace special purpose tools in metalworking. In *Proceedings of the International Congress on Technology and Blindness*, pp. 251-255. New York: American Foundation for the Blind, 1963.

Scott, R. A. *The making of blind men*. New York: Russell Sage Foundation, 1969.

Struck, R. D. Agenda information to be submitted by the directors ten days in advance of board meeting, December 9, 1970. Personal communication.

Thompson, J. L. Training aids and teaching techniques in woodworking. In *Proceedings of the International Congress on Technology and Blindness*, pp. 237-249. New York: American Foundation for the Blind, 1963.

Yoder, N. M. Professional opportunities for the blind. In *Proceedings of the International Congress on Technology and Blindness*, pp. 319-327. New York: American Foundation for the Blind, 1963.

References

Handicap and Cognition: Visual Deprivation and the Rate of Motor Development in Infants

ABSTRACT: The author reviews the research studies on the relationship of developmental delays and visual deprivation. A followup study at the New York Association for the Blind is described and the details of a representative case are presented. The conclusion reached is that delays in development are not due to blindness per se, but to other causes; therefore, the growth and development of the non-handicapped average child should be considered the basis of work with all children.

For centuries, severe sensory impairment (visual and auditory) occurring at birth has been assumed to impair cognitive development or "how human beings achieve, master, and use knowledge" (Bruner, Oliver, & Greenfield, 1966). Aristotle regarded hearing as "the sense of instruction" and concluded that those who lacked it had no capacity to learn. Diderot, in his "Letter on the Blind" (1745), stated that the intellect of blind persons was affected by the handicap (Niklaus, 1966).

□ Today it is assumed by some workers that delays in language and motor development in the sensorily impaired child have a different significance than such delays in the non-sensory impaired child. For instance, Piaget (1969) has stated, "although deaf and dumb children are delayed compared to normal children, they are delayed much less than children who have been blind from birth." "The delay is made up ultimately, of course, but it is significant and considerably more than the delay in the development of logic in deaf and dumb children."

This assumption has been at the basis of diagnostic judgments and, hence, has influenced educational and treatment programs for the handicapped. An examination of its validity may therefore be of value.

Many recent clinical studies of congenitally blind children have agreed with Piaget that deviations in development in blind infants have a special significance (Hallenbeck, 1954; Elonen & Zwarensteijn, 1964). Gesell and Amatuda (1958), on the other hand, felt that the development of the normally endowed blind child does not deviate significantly from the normal child. The two most widely quoted longitudinal studies of blind infants (Norris, Spaulding, & Brodie, 1957; Fraiberg, 1968), have also agreed that deviations in development of the blind infant occur which are specific for blindness and which therefore do not bear the same significance that such delays do in the sighted.

Norris, Spaulding, and Brodie (1957) reported the largest sample of congenitally blind preschool children studied longitudinally. The sample consisted of 295 children, between one and six years of age, all legally blind,

This article is based on a paper originally presented at the Sixth Annual Conference of the American Association for Child Care in Hospitals, New York City, May 20, 1971.

ARTHUR E. GILLMAN, M.D.

Dr. Gillman is a psychiatric consultant with the New York Association for the Blind, New York City.

The Significance of Delays

Clinical studies

Longitudinal studies

who comprised the major portion of all known blind children in the Chicago area. Of the 295 children, 233 were considered to have no major other physical handicap. From this group with no other physical handicap, 66 preschoolers were selected for study in a nursery school program and were called the "intensive group."

□ The authors described delays in fine motor coordination and grasp of spatial relationships, which they stated were not significant and would eventually be "caught up" with. They based this on the finding that the I.Q.'s of their groups were within the average range. The Mean I.Q. (Stanford Binet) of the intensive group was 109.7 and of the non-intensive group 96.3 (those without physical handicap but not included in the nursery school program).

Cohen was able to study 57 of the original 66 children who made up Norris' intensive study group eight to 12 years later. At follow-up, his group found that intellectual functioning ranged between 45-160 on the Hayes Binet I.Q. scale. Four children were untestable, and five were in institutions for the mentally retarded. Of the remaining 48 children, 18 scored below 80, with 12 of these below 70. Roughly half the group then "could be classified as mentally subnormal." On the other hand, 24 individuals scored between 80 and 120, and six had I.Q.'s above 120 (Cohen, 1966; Boshes, Cohen, Alfeno, & Lee, 1967). The average I.Q. of the group was somewhat lower than that originally reported, but the individual scatter among test results is crucial in making judgments. "A high incidence of abnormalities was reported in a study of the electroencephalographic (EEG) findings of 28 children with retrolental fibroplasia. It is speculated, therefore, that a major correlative of behavioral retardation in these children is neurological abnormality" (Cohen, Boshes, & Snider, 1961).

In retrospect, it seems that the delays noted in the original study were significant, were not "caught up," and may well have been related to central nervous system deficit, rather than sensory deficit per se.

Fraiberg's (1968) important recent study, "Parallel and Divergent Patterns in Blind and Sighted Infants," is based on detailed and frequent observation of eight children (five boys and three girls between 18 months and six years of age), "who are totally blind from birth or who have light perception only," who have "no other deficits in the sensory or motor spheres or in whom any suspicion of neurological damage exists."

□ Again, the assumption that delays in maturation seen in congenitally blind children do not bear the same significance that such delays hold for the sighted child is made. Fraiberg states, "During the first eight or nine months of life the gross motor achievements of our blind babies follow a maturational pattern and timetable that closely parallel those of the sighted child. The elevation of the head from the prone position, rolling over, sitting independently, appear without significant delay. This tells us, of course, that these motor achievements are relatively independent of vision." "Then in the last quarter of the first year, each of our babies reached a developmental impasse . . . the blind baby is unable to creep" (pp. 278-9). She states that this inability to creep is related to an inability to use sound alone to locate objects and there-

Delays to Be "Caught up"

A followup study

Not "caught up"

Blind and Sighted Compared

fore the blind child does not creep because of deficient stimulation. "The blind baby's delay in locomotion which raised such important questions is actually linked to a problem in prehension and the circuitous route that leads a blind baby to locate an object *on sound cue* alone and to reach for and attain an object" (p.285).

Freedman (1971) compared Fraiberg's observations of blind infants to his own observations of sighted infants' reaction to sound cues alone. "It would appear to be the case that the sighted do not use sound in a 'cognitive context' earlier in life than do the blind. In neither group does the ability to relate a sound stimulus to the existence of a sound-making object appear before seven months. In our series most sighted children acquired this capacity some time between eight and ten months of age." He further states, "What appeared on behavioral grounds to be a lag in the development of the blind infant could not readily be related to the lack of vision."

In another study, Freedman, Fox-Kolenda, Margileth, and Miller (1969) compared the emergence of locomotion (crawling) in seven children who suffered from congenital blindness, congenital rubella without evidence of blindness or obvious central nervous system impairment, and environmental deprivation. In this group the congenitally blind children's progress was closest to the average range of expectation. Freedman suggests that the deficit does not seem to be visual stimulation but rather coenesthetic stimulation (a combination of nonspecific stimulus modalities, i.e. proprioceptive, kinesthetic, and labyrinthine).

□ The delays in motor development of the blind infants reported by Norris and Fraiberg need not be interpreted as related to vision per se but may have been due to other variables such as central nervous system impairment, or inadequate control of the variables being studied (as in the instance of the response to sound). Both studies observed preschool children for limited periods of time (one to three years), inadequate for drawing conclusions regarding the outcome of development.

Followup and interrupted longitudinal design are other strategies to approach this question. We have attempted this approach in preliminary studies at the New York Association for the Blind in order to add this dimension of time. In a pilot study of the records of 74 individuals (all of the child clients of the agency during 1949-50), we attempted to see if early estimates of social development were predictive of later development. (Early studies of the predictive value of infant behavior examinations reported that such tests had little value in predicting later intelligence). More recently, an appreciable relationship has been reported between infant behavior and intelligence quotient (Ames, 1967; Werner, Honzik, & Smith, 1968; Ireton, Thwing, & Graren, 1970).

Was there a relationship between slowed development in preschool years and later intellectual development? From the 74 records, we found 26 in which the Maxfield Buchholz Adaptation of the Vineland Social Maturity Scale for Pre-school Blind Children was administered prior to six years of age and the Verbal Scale of the Wechsler Intelligence Scale for Children was administered

Reaction to sound cues

Emergence of locomotion

Delays and Vision

NYAB pilot study

74 records examined

after six year of age (usually between 10–16 years of age). We found a statistically significant rank order correlation between the two findings. This finding indicates a trend, but must be qualified by the understanding that the Maxfield Buchholz test relies not only on observation of the child but also parental reporting (raising questions of reliability), and the verbal scale of the Wechsler is not a measure of intelligence but a report of verbal abilities.

The difficulties in assessment of longitudinal observation of a highly selected sample can be observed in the rehabilitation training program for young adults run by the New York Association for the Blind at its Queens Center. Here we see congenitally blind children grown up; their voluminous case records include remarks about delays related to blindness which are not "caught up" by the age at which we see them.

□ One representative case will demonstrate the difficulties in early assessment: Lea is 21 years old, congenitally totally blind due to retrolental fibroplasia. She was able to travel by herself with the aid of a dog guide. Her responses to questions were vague and poorly organized, her knowledge and grasp of relationships poor. There was no evidence of serious mental disorder. She had been referred to the program after "not meeting the standards of a sheltered workshop program."

Lea was born after a seven-month pregnancy, weighing 1 lb. 13 oz.; a twin, who weighed 1 lb 9 oz., died shortly after birth. Excerpts from reports of the psychologists, social workers, and teachers who worked with her will illustrate her development.

Three years 11 months—Psychological Report: "She established a good interpersonal relationship with no undue shyness. Her speech was not developed to chronological level (infantile speech). Although test scores were low, she was thought to have a reasonable capacity to learn, as judged by her exploratory behavior." The judgment was that she was "apparently of normal intellect, but needed help with basic abilities."

Five years ten months—Social Work Report: She was "proceeding normally in all areas." Her original immaturity was due to her status of being a "baby doll" in her home. She was noted to have good coordination and strength, to be intelligent, attractive, and to have a good sense of direction.

Six years 11 months—Psychological Report: She had an "average intelligence" on the Hayes-Binet Intelligence Test for the Blind and "better than average fund of general information, vocabulary, and reasoning powers." "She was not making fully effective use of her intellectual assets and has a capacity to perform at a better level." "These inadequacies seem to be a matter of development rather than shortcomings. Her development and intellectual performance seem quite good."

From a teacher's report: Performance in school was uniformly poor and below grade expectation.

Eleven years four months—Teacher's Report: Reading and arithmetic at the second year level. She needed help in simple number facts, was unable to retain "fundamental facts," and "needs considerable practice."

Nineteen years one month—Psychological Test Report: I.Q. was 68 on the

Lea—A Representative Case

Three years 11 months

Five years ten months

Six years 11 months

Eleven years four months

Nineteen years one month

Haptic Intelligence Scale for the Adult Blind. WISC Verbal 81. "Probably dull-normal intelligence as an optimum." Her ability to grasp abstract concepts was poor; her thinking concrete and perseverative. She showed retardation in her ability to organize and integrate elements, apply reasoning, and exercise judgment. Social comprehension and fund of general information were poor. Span of attention was limited.

A neurological consultant at this time made a diagnosis of a probable organic brain syndrome and recommended an electroencephalographic study which surprisingly stated: "The attenuation of alpha activity with eye opening suggests some vision present." Interestingly, this young woman does not use any of the light perception which may be present and functions as a totally blind person.

Lea has been a trainee for the past year and is slowly being trained to function in an activities program. Now she is diagnosed as chronic brain syndrome secondary to prematurity; moderate mental retardation; blindness bilaterally due to retrolental fibroplasia with no useable vision.

□ Although the delays in the maturational sequence noted in some blind children are not related to impaired vision per se, but are due to a host of causes other than visual deprivation, they do have prognostic significance. Blindness does create a specific sensory deprivation, but its effects are not specific. Freedman's (1971) view that the blind infant at least suffers defects in coenesthetic stimulation (which is non-specific), is important for those who work with handicapped children to realize. For remedial programs much stress should be placed on non-specific sensory stimulation, using our knowledge of the needs of normal children at the several stages of development. "The cognitive achievements of blind people lead us to conclude that vision is a *medium* or *carrier* of informational input, but not an indispensable medium" (Klein, 1962, p. 83). Blindness does create a specific sensory deprivation, but its effects are not specific. Freedman's (1971) view that the blind infant at least suffers defects in coenesthetic stimulation (which is non-specific), is important for those who work with handicapped children to realize. For remedial programs much stress should be placed on non-specific sensory stimulation, using our knowledge of the needs of normal children at the several stages of development.

Many workers feel that there is little that is specific in the effects on personality development between one handicap and another (Wright, 1960). One wonders if this lack of specificity would extend to the cognitive areas, too.

In conclusion, there seems to be little evidence to establish specificity of effect on rate of development in blind children. The implication for those who work with handicapped children is that the understanding of the growth and development of the non-handicapped average child should be the basis of work with all children. Specific training of workers for children with specific defects may concern itself with techniques, but it should have a broad generic base.

Ames, L. Predictive value of infant behavior examinations. In Jerome Hellmuth (Ed.), *Exceptional infant*. Vol. 1. New York: Brunner/Mazel, 1967.

Organic brain syndrome

Conclusions

References

- Boshes, L. D., Cohen, J., Alfano, J. E., & Lee, W.-H. Longitudinal appraisal of school age children with retrolental fibroplasia. *Diseases of the Nervous System*, 1967, **28**, 221-230.
- Bruner, J. S., Oliver, R. R., & Greenfield, P. M. *Studies in cognitive growth*. New York: John Wiley and Sons, 1966.
- Cohen, J. The effects of blindness on children's development. *New Outlook for the Blind*, 1966, **60**, 150-154.
- Cohen, J., Boshes, L. D., & Snider, R. C. Electroencephalographic changes following retrolental fibroplasia. *Electroencephalography and Clinical Neurophysiology*, 1961, **13**, 914-922.
- Elonen, A. S., & Zwarensteijn, S. B. Appraisal of developmental lag in certain blind children. *Journal of Pediatrics*, 1964, **65**, 599-610.
- Fraiberg, S. Parallel and divergent patterns in blind and sighted infants. *Psychoanalytic Study of the Child*, 1968, **23**, 264-300.
- Freedman, D. A. Congenital and perinatal sensory deprivation: Some studies in early development. *American Journal of Psychiatry*, 1971, **127**, 1539-1545.
- Freedman, D. A., Fox-Kolenda, B. J., Margileth, D. A., & Miller, D. H. The development of the use of sound as a guide to affective and cognitive behavior: A two-phase process. *Child Development*, 1969, **40**, 1099-1105.
- Gesell, A., & Amatuda, C. S. *Developmental diagnosis: Normal and abnormal child development*. New York: Hoeber, 1958.
- Hallenbeck, J. Pseudo-retardation in retrolental fibroplasia. *New Outlook for the Blind*, 1954, **48**, 301-307.
- Ireton, H., Thwing, E., & Graren, J. Infant mental development and neurological status, family socio-economic status, and intelligence at age four. Paper presented at the annual meeting of the American Orthopsychiatric Association, 1970.
- Klein, G. Blindness and isolation. *Psychoanalytic Study of the Child*, 1962, **17**, 82-93.
- Niklaus, R. Diderot. *Encyclopaedia Britannica*, Vol. 7, p. 391. Chicago: 1966.
- Norris, M., Spaulding, P. J., & Brodie, F. H. *Blindness in children*. Chicago: University of Chicago Press, 1957.
- Piaget, J. Genetic epistemology. *Columbia Forum*, Fall 1969, p. 61.
- Werner, E. E., Honzik, M. P., & Smith, R. S. Prediction of intelligence and achievement at ten years from twenty months pediatric and psychologic examinations. *Child Development*, 1968, **39**, 1063-1075.
- Wright, B. A. *Physical disability: A psychological approach*. New York: Harper & Brothers, 1960.

Coming Next Month

The October 1973 issue of the *New Outlook* will include a statement of the needs of blind persons, and articles on closed-circuit television reading systems, the integrated resource classroom, and the 1873 Vienna Congress of Teachers of the Blind.

Blindness and Social Behavior: A Need for Research

ABSTRACT: After briefly noting that the literature on the psychology of blind persons has been largely concerned with personality and public attitudes, the author concludes that there has been a lack of progress in theory development and research. He suggests that progress may be stimulated by examining the role of behavior in theories of socialization as a starting point for research. Specific areas of research to be considered are: 1) attitudes of others toward the blind; 2) the behavior of others when interacting with the blind; 3) the self-concepts of the blind; and 4) the behavior of the blind when interacting with others.

A review of the literature concerned with the psychology of the blind published from 1900 to date revealed that there have been two major areas of study. One has centered around attempts to define the personality of the typical blind person, and the other has involved attempts to assess the attitudes of the general public and special groups toward blind persons. Furthermore, much of the work appearing in the literature is impressionistic and anecdotal, and it does not meet the standards embraced by the scientific approach.

□ Barker, Wright, Meyerson, and Gonick (1953) stated that the studies in personality up to 1953 have been the "hit and miss" type, generally have been conducted by graduate students, and have resulted in a confusing array of findings. In addition, Whiteman and Lukoff (1964) stated, "compared to the personality focus there are relatively few empirical studies exploring the psychologically relevant aspects of the blind person's environment" (p. 339).

The lack of development in research, and consequently in knowledge, concerning the psychology of blind persons has resulted in criticism of both the efforts and the output of those involved in the field. Barker et al. (1953) stated,

... an important fact about the current status of the psychology of the blind is that theory is even less developed than research. Without question, this is a basic reason for the meager yield of research to date. The failure to link theory and investigation means that theoretical work on the blind has been little more than speculation and that research has been little more than random, exploratory collection of data (p. 290).

More recently, Nolan and Ashcroft (1969) have stated, "research in the area of the visually handicapped tends to follow rather than initiate practice" (p. 25).

The lack of progress in theory development and research may be due to some missing links needed to tie together the research to date and to guide future studies. It is proposed that the missing links are involved with the lack of knowledge of the behavior of blind and sighted persons when inter-

LARRY DALE BAKER, D.B.A.

Dr. Baker is assistant professor of management and organizational behavior, School of Business Administration, University of Missouri, St. Louis.

Previous Research

Theory is underdeveloped

Missing knowledge

acting with each other. It is further proposed that the attitudes toward blind persons, the behavior toward them, and their personality and behavior may be all interrelated and interdependent; and that theorizing about these four variables and their possible relationships can lead to research which may result in an integrated body of knowledge in the psychology of blind persons.

□ The missing links, as suggested above, are best understood by defining the role that behavior plays in theories of socialization. Bennis, Schein, Steele, and Berlew (1968) proposed that the process of the individual learning about himself begins very early in life. Much of what is learned results from interacting with others whose evaluative responses to him and his behavior gradually shape his overt personality as manifested in his behavior. They further stated, "every person has certain beliefs about who or what he is; taken together, these beliefs are a person's self-image, or identity" (p. 217). They further express the importance of social interaction in stating, "each act directed toward us contains cues about how others see and experience us as individuals. Thus, our beliefs about our self, our self-image, are in large measure a reflection of others' perceptions of us" (p. 218).

According to the socialization theory of Bennis et al. (1968), the personality of persons who are blind are social products that are shaped by the behavioral responses of those who comprise their social environment. This includes those in the roles of parents, siblings, playmates, teachers, and co-workers. The theory further suggests that the personality of blind persons is manifested in their overt behavior and that the perception of that behavior determines the actions of others toward them. It is a simple step to go from others' perceptions of blind persons to their attitudes toward blind persons. It is the perceived verbal and physical behavior of blind persons, therefore, which determines what others think and feel about them.

□ Figure 1 presents a model which illustrates the relationships among the variables discussed above. Reading the model in a clockwise fashion puts the variables involved in the socialization of blind persons in their proper order. It illustrates that the attitudes of others influence their behavior toward blind persons. Their behavior influences blind persons' self-concept, including their personality as reflected in their overt behavior and their self-image, i.e., what they think and how they feel about themselves. In turn their self-concept influences their behavior, and the behavior of blind persons influences the attitudes of others toward them.

If the variables depicted in the model of the socialization process presented above are interdependent, the socialization cycle may be self-perpetuating. It has been both asserted as well as found in several studies, however, that there are sometimes incongruencies between a person's attitudes and his behavior (Kramer, 1949; La Piere, 1934; Mann, 1969; Rokeach, 1966; and Rosenberg, 1960). In other words, it is not always possible to determine what one thinks and how one feels about another by observing his actions. Therefore, the attitudes toward blind persons expressed when using pencil and paper instruments may be one thing and how people behave when they encounter a blind person in a social situation may be something completely different.

Socialization and Behavior

Self-perpetuating cycle

A Model of Relationships

Personality as a social product

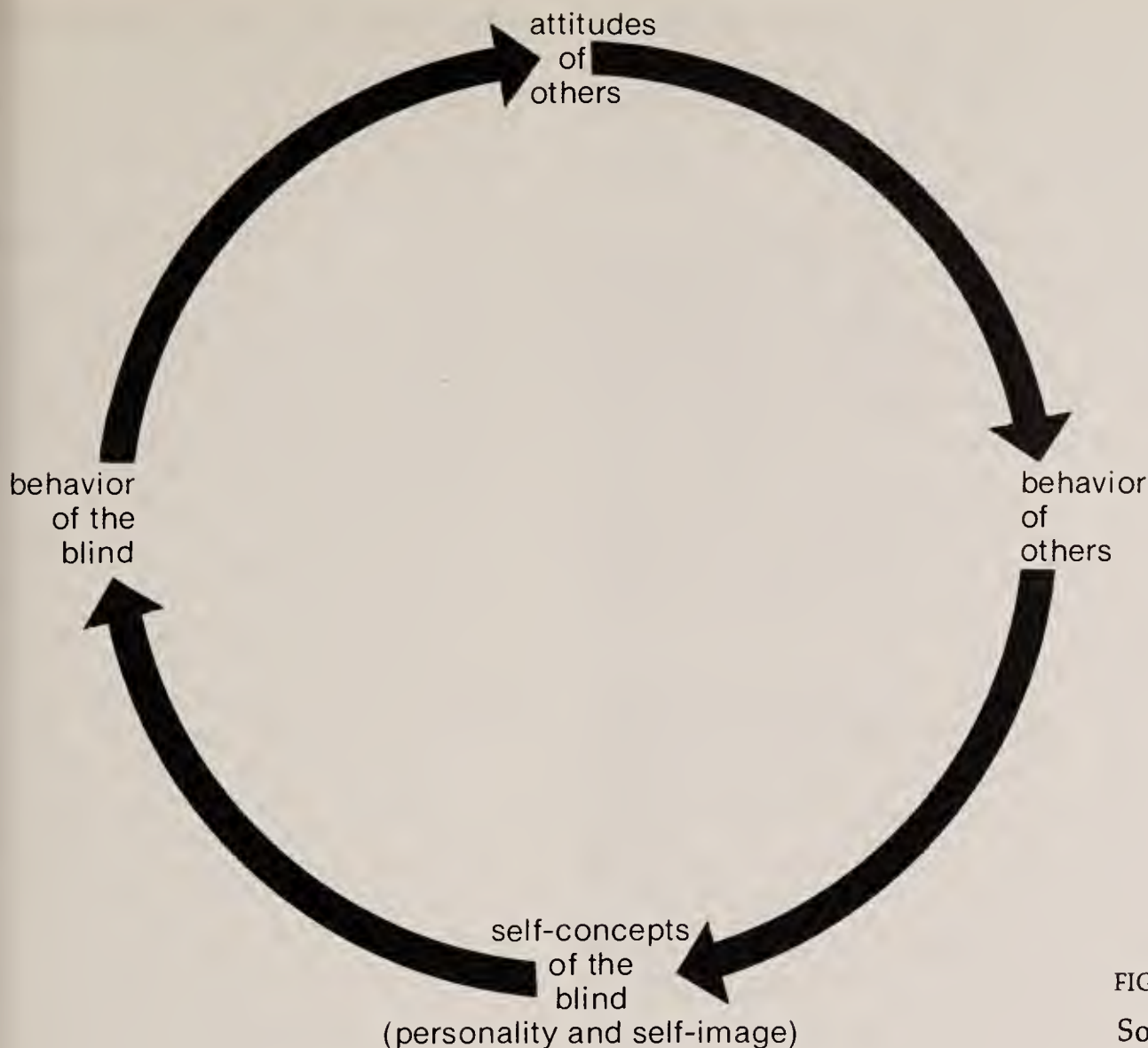


FIGURE 1
Socialization Process for the Blind

No blind person, or any other person, responds to the attitudes of another unless those attitudes are accurately expressed in verbal or physical behavior.

□ This lack of congruity between attitudes and overt behavior may also be an impediment to the development of a consistent body of knowledge in the psychology of blind persons. Anyone who has been involved in assessing attitudes realizes that subjects have preconceived ideas as to what are socially acceptable attitudes and that these perceptions tend to influence responses to questions on pencil and paper tests.

Another behavioral phenomenon which may account for the confusion attributed to the findings in the literature concerned with the personality of those who are blind is the tendency for blind persons, as well as others, to engage in both verbal and physical behavior which is consistent with the personality characteristics the public generally attributes to them and which it generally reinforces. If blind persons behave in this way, it would be nearly impossible to either predict their behavior from knowledge of their self-image or to accurately draw inferences about their self-image by observing their behavior.

Attitudes and Behavior

Public expectations

□ Given the above considerations, four important areas of research are suggested. They are: 1) the attitudes of others toward the blind; 2) the behavior of others when interacting with the blind; 3) the self-concepts of the blind; and 4) the behavior of the blind when interacting with others. In addition, the interrelationships among these variables must be studied.

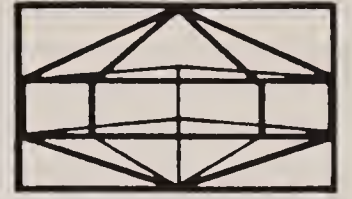
At some time in the future it may be possible to determine if there are congruencies among the cognitive and behavioral elements of the socialization model presented above. To the extent that such congruencies are found, the ability to predict the behavior of both sighted and blind persons from knowledge of the cognitive factors will be increased. Our ability to explain the behavior of sighted and blind persons could be improved if our findings also suggest some causal relationships among the elements of the model. Then too, if incongruencies are consistently found among the behavioral and cognitive elements of the model and it is not possible to make predictions, it is hoped that the findings will give us the information necessary to explain the forces which cause and support the incongruencies.

□ In summary, research in the psychology of blind persons has become fixated at the level of accessing attitudes toward blind persons and accessing the personality of those who are blind. Furthermore, the literature is devoid of studies designed to analyze the interpersonal behavior of blind and sighted persons. Given the important role of behavior in the development of attitudes, personality, and self-image, it is important to study the behavioral environment of blind persons. Only by determining the behavior of blind and sighted persons in many social situations will it be possible to determine the validity of the socialization model presented in Figure 1. Thus, in order to fill the enormous gap in the psychology of blind persons which has resulted in a lack of theory development and systematic research, it is necessary to determine how blind and sighted persons act and react toward each other at home, at work, at play, at school, and in many other social situations.

Summary

- Barker, R. G., Wright, B. A., Meyerson, L., & Gonick, M. *Adjustment to physical handicap and illness: A survey of the social psychology of physique and disability*. New York: Social Science Research Council, 1953.
- Bennis, W. G., Schein, E. H., Steele, F. I., & Berlew, D. C. *Interpersonal dynamics*. Homewood, Illinois: Dorsey Press, 1968.
- Kramer, B. M. Dimensions of prejudice *Journal of Psychology*, 1949, **27**, 389-451.
- LaPiere, R. T. Attitudes vs. actions. *Social Forces*, 1934, **14**, 230-237.
- Mann, L. *Social psychology*. New York: John Wiley & Sons, 1969.
- Nolan, C. Y. & Ashcroft, S. C. The visually handicapped. *Review of Educational Research*, 1969, **39** (1), 52-70.
- Rokeach, M. Attitude change and opinion change. *Public Opinion Quarterly*, 1966, **30**, 529-548.
- Rosenberg, M. J. Cognitive reorganization in responses to the hypnosis reversal of attitudinal affect. *Journal of Personality*, 1960, **28**, 39-63.
- Whiteman, M. W. & Lukoff, I. F. A factorial study of sighted people's attitudes toward blindness. *Journal of Social Psychology*, 1964, **64**, 339-353.

References



Blindness Speaks for Itself

Editor's Note: Mr. Barnett, author of this column, executive director of the American Foundation for the Blind, and editor-in-chief of the New Outlook, was among those attending the annual meeting of the Board of Directors of the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped, held in June at the O'Hare Inn, Chicago. The meeting was picketed by members of the National Federation of the Blind who were protesting the policies of NAC. His reaction to this confrontation was one of reflection on the struggle of the organized blind and led to his deciding to reprint the following "Hindsight" column, written at a time, some 14 years ago, when similar issues were being raised. The Baring bill, to which reference is made in the column, was introduced in the U.S. House of Representatives by Congressman Walter S. Baring (D-Nev.) A similar bill had earlier been introduced in the U. S. Senate by Senator John F. Kennedy (D-Mass.). Neither these two bills nor the other versions of and alternatives to them were ever approved by the appropriate House and Senate committees for Congressional action

—M.E.Mo.

If ever there was a demonstration that blindness does not rob a man of his ability to speak for himself, it happened in Washington in March. If ever there was a demonstration that no one blind man can speak for all the blind, that, too, happened in Washington in March.

The setting was the U. S. House of Representatives. The time was the week of March 9, when for five working days the House Subcommittee on Special Education sat to hear witnesses for and against certain bills of special importance to the blind and to those who are concerned about them. There were about 40 witnesses altogether—and altogether about

three-fourths of those were blind persons. About three-fourths of these were identified as officers or employees of the National Federation of the Blind, both national and local; the remaining one-fourth were representatively scattered through organizations such as the American Association of Workers for the Blind, the Blind Veterans Association, the National Council of Directors of State Agencies for the Blind, and the American Foundation for the Blind. All were exceedingly vocal, articulate, expressive, demonstrative and definitely—yes, definitely—blind.

Of course, the vocalizing was not confined to the blind alone. The six committee members, none of whom was blind—were not always quiet. Not only did they ask a great many questions, most of them good ones, but they occasionally made observations, also most of them good ones. Among the scattering of non-blind witnesses there were some quite talkative ones, especially those representing the National Rehabilitation Association, the National Optometric Association, and the U.S. Department of Health, Education, and Welfare. There were, further, some especially vocal folks who seemed to represent only themselves as individuals, like Dr. Merle E. Frampton and Dr. Virginia Axline, both of New York.

Ostensibly and actually, the congressional committee convened the hearing for discussions of two specific sets of bills: those labeled "a bill to protect the right of the blind to self-expression through their own organizations," and those which under slightly different labels all would call for a commission-type study of the field of service to the blind. Either well before the start of the hearing or at least soon afterward, someone or something managed to create the impression that this was to be a great debate between two groups of people as well as between two sets of legislative proposals. On the one side—as it may have looked to the congressmen—the repressed, suppressed, oppressed, and de-

pressed blind of America; on the other side, the sighted, the public, the government, the humanitarian professions, employers, and all agencies for the blind. To narrow it a bit, it seemed to the congressmen that "the blind" wanted something and that they were opposed in getting it by agencies for the blind.

All of this was, in my opinion, both good and bad. Good, simply because it added zest to the situation, and even the blind love a good fight as history repeatedly shows. Bad, because it distracted the group from the real issues, camouflaged the real problems, and stirred emotions where intellect and fact should have ruled.

I'd love to tell you the rest of my opinions—but to do that I would have to print here the 19 pages that my own testimony filled. Further, to be fair to the opposition, I would have to print several hundred pages of the testimony of others. It will all be printed at the expense of the taxpayers, and you can get your own copy in due course. But since I was one of the indefatigable few who sat through every witness from start to finish, I might just give you some subjective reactions to the drift of things. Here is my impression, in paraphrased form, of what some witnesses were saying—

A southern congressman: Believe me, I'm not mad at anybody. It's about time we took a good look at what we have for blind folks, and find out whether there isn't some improvement in kind, quantity, and coordination indicated. I may be wrong, but I think I'm right.

A western congressman: I am convinced the blind can speak for themselves through their own organization. There are those who won't let them. They need the protection of a federal law. In my state, however, the blind do speak for themselves and everybody is very happy about it. Our welfare department director already believes in consultation with them. Everybody should.

Director of a state agency for the blind (sighted): As for the right to organize, the National Federation of the Blind itself has reported organized chapters in forty-six states, with 300 local units. As for the right to self-expression, its leaders have been making good use of it for some little time. The Baring bill, therefore, is unnecessary. Further, it would be a precedent for other beneficiary groups.

Leader of an association for the disabled (sighted): The self-expression bill, with its implied statutory right to be consulted by administrators of federally-financed programs, is unsound and inefficient—what about other groups having the same right? I have known of no instances of serious reprisal by administrators against blind clients, and have sat on many occasions shoulder-to-shoulder with Federation of the Blind representatives at national-level consultation sessions upon invitation of administrators. I would very much welcome a study, but prefer one like that outlined in the Fogarty bill.

A national leader of the organized

blind: Custodial paternalism is a deep-seated attitude on the part of society in general and organizations for the blind in particular. Only those who are blind know best what they need or can do. Organizations of the blind themselves must demonstrate that the blind are normal, that the blind are socially acceptable, that the blind can work. Agency administrators will not of their own accord recognize the value of consultation with the blind, or may even be afraid that their own soft jobs will be in jeopardy. Therefore, a law must be passed to make them listen to the true concepts of blindness that only an organization of the blind is capable of knowing. Not all agency people are bad, however.

A local leader of the organized blind: You see, it's this way. Some of these agency people get to liking their nice big salaries and their fine automobiles and just don't want to give up a good thing. Even if the program they run was once helpful to the blind, they psychologically resist new ideas, especially ideas that might make their agency go out of business. This is why

we need the organized blind to have a law that makes these people take our advice.

Another local leader of the organized blind: The state agency and other agencies serving the blind can benefit a great deal from consulting with us and from the two of us working together. In my state, we have had a wonderful relationship between the organized blind and the agencies, and things have come about in improving our school for the blind and other services that could not have been accomplished alone. We need the law to help this cooperation become universal all over the country.

A New York psychologist (sighted): There are a great many blind children who are emotionally disturbed, and many of those thought to be mentally retarded can be helped. Yes, a study of all problems in blindness today is very much indicated.

A Foundation staff member (blind): Why not amend the vocational rehabilitation act to include a provision for fair hearings for clients in the same way that such provision already exists in the public assistance



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

**MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR**

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation

and social security laws? If we are to do a study—and one certainly is needed—let's provide it with ample and realistic funds. Congressman Fogarty has worked out a detailed outline in support of the \$450,000 his bill would appropriate for such a study.

A school for the blind superintendent (sighted): I have prepared testimony to the effect that all studies are abominable. It is a waste of time and money to survey; existing agencies already know everything the commission would learn, or if they don't they ought to. Everything or anything else you want to know must be off the record. I won't comment about the Baring bill—it would be misunderstood.

A blind electrician: There are a couple of problems about being an electrician when one is blind, but they aren't as bad as most people think—I'm doing as well for my employers as before I lost my sight. I found that the public assistance people and the rehabilitation agencies were unimaginative to say the least. Thanks to the local Federation group I got the help I needed to get started again.

A Federation staff member: As usual, my state is bigger than anything. The blind probably are mistreated here worse than anywhere else. Yes, the state agency director is a crackerjack politician, and he's got a lot of good ideas, but he just won't let any blind person join an organization of

the blind. He spends public money just riding around breaking up Federation chapters by threatening reprisal. Yes, we did try to get our grievances heard by the state legislature, but one of his friends introduced a resolution praising him for his wonderful work and our friend withdrew his resolution.

A blinded veteran: The next war won't be won with bullets—it's going on now and will be won by people. America must demonstrate that it is a land that cares for people, especially its handicapped people. The right to organize is already granted under the Constitution, but a study is imperative in order to find out what's wrong with many programs.

A movie star: I haven't studied the bills, but I'm sure that anything these people want would be all right.

Another Federation staff member: We can document instances of interference by state officials in the right of blind people to organize. In my state, however, everything is lovely with the Federation consulted on everything. I am not opposed to the study, but think we should have more representation on the commission.

Blind voluntary agency executive: For a long time we were neutral. We waited to see how things were going, and then decided to come out for the Baring bill. A certain writer in the *Outlook* is to be con-

demned, and my testimony is pretty much just that—condemnation of a writer in the *Outlook*.

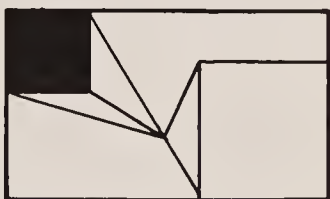
My own: I am not asking Congress to do anything that is not already its responsibility, but to examine the progress or lack of it made under a dozen federal laws, programs, or benefits for the blind. It might be shown that either the intent of Congress has been forgotten or that programs are riddled with below-standard facilities and personnel. I am opposed to the Baring bill of course. I am very much in favor of a study, and have been ever since 1951.

There were others, of course. If you don't like this report, then come listen to the debate yourself. You'll have your chance if the bill or bills or a compromise of all of them ever gets to the stage of hearing in the U.S. Senate. When it does, I, for one, intend to sit through it all again. I wish everyone concerned with these problems could do likewise. Nothing may be concretely realized even now, but at least blindness is getting a chance to speak—for that you can thank a fine gentleman of a committee chairman, Congressman Carl Elliott, and his colleagues. Something was demonstrated before them—only they could tell us just what.

—M.R.B.

Reprinted from the May 1959 issue of the *New Outlook for the Blind*.

Letters to the Editor



Tactile vs. Tactual

To the Editors:

A lively correspondence has been going on in the *California Transcriber*, the official publication of the California Transcribers and Educators of the Visually Handicapped, between myself and our illustrations specialist, Jane Corcoran, about the need for clarification of terminology. The problem is the apparently haphazard interchangeability (in much current litera-

ture) of the words "tactile" and "tactual."

According to *Webster's Second Unabridged Dictionary*, "tactile" is defined as: "1. Perceptible by the touch; capable of being felt or touched; tangible; as, tactile qualities. 2. Of or pertaining or relating to the sense of touch; as, tactile sensibility or sensations; endowed with touch; concerned in the sensation of touching; as tactile organs." "Tactual" is defined as: "1. Of or pertaining to the sense, or the organs, of touch; derived from, or producing

the sensation of, touch; as, a tactual sense; tactual anesthesia or tests."

According to *Webster's New World Dictionary*, "tactile" is defined as: "1. That can be perceived by the touch; tangible. 2. Of or having the sense of touch." "Tactual" is defined as "1. Of the sense or organs of touch. 2. Causing a sensation of touch."

In discussing raised-line illustrations, embossed maps, etc., it seems to us both that "tactile," in its first meaning, is the appropriate term. "Tactual" would be more

appropriately and accurately used in medical or physiological contexts, it seems to me. It may seem a minor matter, but habitual usage does tend to solidify in practice, and the differentiation between the two terms will no longer be clear or valid. Please pardon my over-scrupulous attitude toward "mere" words; it is an incorrigible editorial fault!

Norma L. Schecter, Editor
The California Transcriber
West Covina, California

Correction

To the Editors:

The orientation and mobility program described in the article "Making Mobility Meaningful" (*New Outlook*, April 1973, pp. 161-67) was developed through the combined efforts of Mr. Harold Rector, Mrs. Zelda Bower, Mrs. Joyce Rocco, and the author. These same individuals were also involved in formulating the achievement levels listed in the article's appendix. Many of those involved were familiar with

the mobility program at the Central Rehabilitation Section for Visually Impaired and Blind Veterans, Veterans Administration Hospital, Hines, Illinois, and used its format as a model for the program developed at the Iowa Braille and Sight Saving School. The author regrets that these acknowledgements were not explicitly made in the article when it was submitted for publication.

Alvin Vopata
Vinton, Iowa

Review

Low Vision: The Edge of Sight. Produced and directed by Jonathan Sanger for the Vision Rehabilitation Clinic, University Hospital, Boston University Medical Center under a grant from the Rehabilitation Services Administration, Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare, 1972. Sound, color, 16mm, approx. 30 minutes. Further information is available from Mrs. Dagmar B. Friedman, Vision Rehabilitation Clinic, University Hospital, 750 Harrison Avenue, Boston, Massachusetts 02118.

Reviewed by Irving R. Dickman

"They wanted me to learn mobility, braille, homemaking," says the attractive young woman on the screen (all dialogue is quoted approximately, since the script was not available). "I'm not a completely sighted person; but I'm not *blind*."

Immediately our sympathies are engaged on behalf of this attractive—and visually limited—girl and against the badly blipped-out agency which tried to make her blind. The first few moments of this film highlight both what it does well—its sharply drawn portraits of people needing help—and what it does not do nearly as well—its fuzzier focus on the process of helping. Four visually limited people are shown now, in their present relationship to the Boston University clinic; what

comes through only dimly is the change from *before*, the impact of vision rehabilitation on their lives.

The result is that *The Edge of Sight* conveys the problem of limited vision far better than it does the solution (or the road to a solution). Yet even so it is to be valued; there is far too little knowledge about—or even awareness of—something affecting hundreds of thousands, perhaps millions, of Americans.

With this in mind, the choice of four "beautiful people" as "stars"—even if they are not typical of the oculist's or clinician's usual caseload—has considerable merit. If they are more attractive and articulate than most human beings, all the better for reaching out to the mass audience, the television audience, the members of service clubs and civic organizations, the people who vote the budgets and pay the taxes and give voluntarily to boot.

But in addition to projecting themselves as "Grandpop" and "the kid next door," rather than statistics, the four clients do more—they convey something of the variety of experiences, problems, life-styles, and prognoses which are encompassed under the general heading of "limited vision."

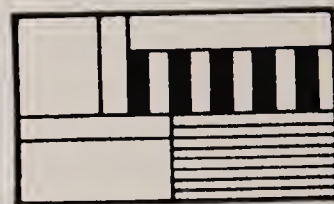
A 29-year-old college student has a hereditary condition; he has 20/40 acuity in one eye, counts fingers with the other; prognosis: poor. He is shown trying to

study with a bar-magnifier; "There's no such thing as pleasure-reading for me, the way there was when I was younger." His wife reads to him, he listens to tapes—in preparation for the time when he will be unable to read at all, even with aids. People like to watch him hunt for things he can almost touch, he notes bitterly; they're curious, sometimes even scornful.

Yet his younger cousin, 12 years old and with the same hereditary problem, draws strength from what the college student has achieved—"If he can do all right, then I can do all right." He cannot see well enough to read music, but he is shown riding a two-wheeler happily along a quiet street. "I don't have too much trouble," he comments, "but some doctors and my parents say I should be a little more careful. . . . Later on I may have to stop riding, because it's getting a little worse."

Next is an 81-year-old with macular degeneration. His vision is now stable, but it is 5/200 in both eyes. With headborne lenses he reads print an inch or two away—"but I am able to see what I want to, and do what I have to do." He uses a monocular to watch birds, and to see the pins down the alley when he bowls. The most important thing the clinic did for him, he says, was to eliminate his worry that he would become totally blind.

Finally there is the young woman who opens the film; she is 21, with retrolental



fibroplasia; her acuity is 8/200 and stable; she notes matter-of-factly that she has "tunnel vision." We see her playing the piano, her nose almost touching the sheet music. It turns out that she is not only part of the problem; she is now a member of the Boston clinic's staff, and therefore part of the solution as well.

"I have three patients whom I have talked to," she says, and immediately confusion sets in. She is shown at a session of the clinic's staff—as what? Social worker? Counselor? Paraprofessional? What is it she talks about, and why?

Others are shown—obviously professionals. Usually what they do is clear—even to a mass audience; but would that audience also understand where it fits into the process? And sometimes even what they are and what they do isn't clear. This is particularly true—even on a second viewing—of a scene involving the college student and what appears to be a social worker or counselor or administrator—in any case, someone seated across a desk from him.

What is so disturbing is not entirely the woman's identity—she may, after all, be an ophthalmologist out of uniform—but the good news-bad news quality of the scene. She tells the young man—apparently breaking the news to him—that he is legally blind. I didn't know that, he answers; I didn't really know anything about my condition. Whereupon she tempers the bad news by telling him that the clinic can do some things for him—and the Massachusetts Commission for the Blind will pay for everything!

Traditionally it has been the medical professional to whom it has fallen to break the bad news. Yet it is only the scene on the screen—and its abruptness—which are disturbing; not the possibility that roles and responsibilities may be changing. Perhaps the question of who is to answer questions should be resolved on the basis of such personal attributes as sensitivity rather than by professional title.

The fact is that today nearly every aspect of the limited vision field is changing—including its population. Industrial and sports accidents, wars and diseases claim fewer victims; even hereditary defects are a stable percentage of the total. Today, two out of three of the visually limited are over

65; this figure is likely to increase as the life-span of most Americans increases.

Once the problem may have centered on children and young people, legally blind or nearly so, whom schools and agencies insisted on treating as though they had no useful vision. But today—and tomorrow—it is much more likely to involve people too old and too isolated to know they have a problem, or too apathetic to do anything about it.

We have all been sensitized by Robert A. Scott and *The Making of Blind Men*—if we weren't before—to the existence of fly-paper-agencies which want to keep "helping" people until they are total clients.

That image is reinforced here, not only in the film's opening sequence, but in its summation: "Many patients have been treated as though they had no vision at all." Yet the real problem today would appear to be too little help rather than too much. For every visually limited person who is urged to learn braille and mobility by an agency, there are tens of thousands of people who never get as far as an agency's front doors.

But even if there were far more vision screening programs than there are now, and even if community groups and agencies were to seek out the helpless and apathetic, what then? In its closing moments the film does go to what may be the heart of the problem—that such clinics as this one are almost unavailable in the United States.

In 1957, the American Foundation for the Blind found that there were only ten or 12 low vision clinics in the entire country. On paper, there are now between 75 and 80; but many function only one day a week, others once a month or "by appointment." The number of fully operative clinics may therefore be no greater now than it was in 1957.

In those years a man with "15 percent vision" came to the Foundation and pleaded for help: "It's about time somebody did something for us. We're the forgotten people." Today, almost a generation later, the number of "forgotten people" like him may actually be even larger.

Yet these are people who should not be forgotten, *The Edge of Sight* tells us. They

should not be allowed to slip from society's sight; the "primary goal" of the Boston University clinic is "to maintain individuals in the mainstream of life."

How to achieve this? Clearly there are no simple answers. But no answer will ever be found unless those concerned continue to ask the question.

Mr. Dickman, a free-lance writer specializing in health and welfare subjects, is the author of the booklets Living With Blindness (1972) and What Can We Do About Limited Vision? (1973), both published by the Public Affairs Committee, Inc.

Is My Baby All Right? A Guide to Birth Defects, by Virginia Apgar, M.D., and Joan Beck. Trident Press (630 Fifth Avenue, New York, N.Y. 10020), 1973. 494p. \$9.95.

Reviewed by Augustine Gentile

This book should receive its greatest acclaim for daring to bring to the light of day from the obscurity of the professional journals the truth about birth defects. In doing so, Dr. Apgar, with the help of Mrs. Beck, has become one of the few medical scientists who has tried to do something about a problem instead of just describing it.

In almost 500 pages the authors have gathered all the best available knowledge about the causes and incidence of birth defects and fetal loss. Unencumbered by footnotes and bibliographical references and in mostly non-technical language, it seeks to make clear to "everyone who cares intelligently about the quality of family life" everything that is known about and what can be done to prevent birth defects.

Unfortunately, at \$9.95 and with 500 pages it is not likely to reach the great majority of the people that it should. Perhaps one of the helpful agencies mentioned in the book would be willing to reprint and distribute the excellent chapter on "How to Prevent Birth Defects" (Chapter 31, pages 435-52).

In general, this reviewer has no quarrel with the content or with what is said in this book. My reservations are about what is

OPTISCOPE®

Illuminated Enlarger System

MODEL C

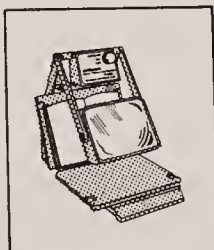
see any print
ILLUMINATED
and **ENLARGED**
in black and white
or full color

**A MORE
SELF-SUFFICIENT LIFE
FOR THE PERSON
WITH LOW VISION**

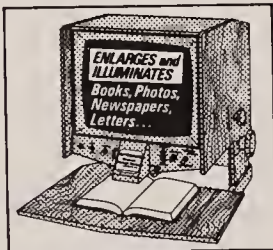
\$295

f.o.b. Hempstead, N.Y.

Also available from Opaque Systems Ltd.



Better Vision
Lens System
MARK V



Electronic
Enlarger System
ELECTRO CC 5000

The Optiscope Illuminated Enlarger System-Model C is a *new medical instrument* that now enables thousands of partially sighted persons and persons with low-vision capabilities to read books, newspapers, magazines and personal letters, or to view treasured photographs. All in black and white and full color.

The Optiscope projects an illuminated image on a large 9 in. x 14 in. polarized screen and the unique OPTILITE Comfort Control regulates the illumination for one's personal comfort. The unit is compact, portable (only 14 pounds) and simple to operate.

Also available from Opaque Systems Ltd., is the Better Vision Lens System-Mark V with the Optilite Comfort Control and the Electronic Enlarger System Electro-CC5000, a single unit, compact, self-contained closed circuit television system.

Write or call to order any of these low-vision aids or for additional information and color brochures.

Copyright ©1973, Opaque Systems, Ltd., Hempstead, N.Y. Patented, other U.S. and foreign patents pending. Specifications and prices subject to change without notice.

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

not said. Perhaps it is too much to expect these brave ladies to go beyond lifting the veil of secrecy about birth defects. However, having braved this much, I would hope that they will go further. The book raises many implied questions. The statistics cited are in most cases not valid by the usual technical standards. Yet valid data could be collected by the appropriate federal agencies. Why haven't they done so?

Dr. Gregg, the Australian, gave the world his report on the association of rubella with neurological birth defects in 1941. Why did it take until 1966 for American scientists to agree? Rubella vaccine has been available since 1969 and the authors

proudly announce that 27 million Americans have been vaccinated (an optimistic estimate). What they fail to report is what proportion of that number are women in the child-bearing ages. Why haven't the authors stated that a massive rubella vaccination program (as was conducted for polio) could reduce the number of defective pregnancies within 12 months by as much as 25 percent?

Finally, in light of the millions being spent to provide care and services to the handicapped, why has so little been spent on the prevention of these handicaps? Perhaps their reasons for not raising these questions are good ones. In any event, *Is*

My Baby All Right? will be read and the questions will be raised by others. Then perhaps, as the authors state, "if all of the knowledge now available could be put into use by physicians, by public health officials, and especially by individuals who are still to become parents, probably more than half of the birth defects which now occur could be prevented."

Mr. Gentile was formerly with the National Center for Health Statistics (NCHS), U.S. Public Health Service, and recently participated in the vision survey project conducted by NCHS and the American Foundation for the Blind.

Comment



A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be 350-1000 words in length.

A Minority Group Missed by the Equal Employment Opportunity Act

William M. Winkley

It is often stated that the blind and other groups of disabled people are discriminated against in the same way that better-known minority groups are. There is a strong indication that this statement is accurate; and I am wondering what those of us in the field of services to the blind are

doing to combat this formidable block to our work. There is evidence all around us that other groups are successfully overcoming discrimination, and possibly we could learn from them how to more successfully remove barriers to full participation in American life by blind persons.

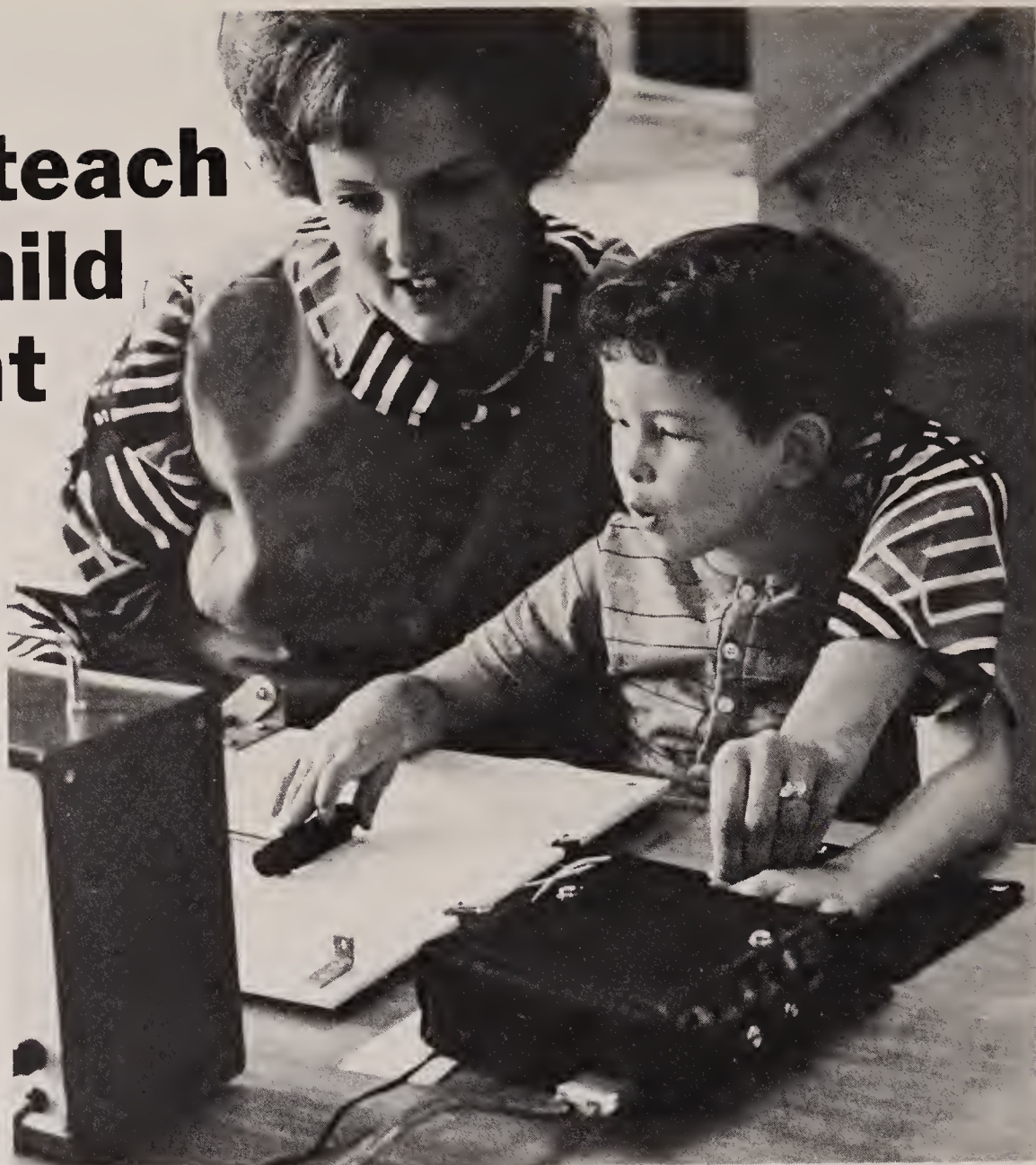
Certainly there are similarities between a group of individuals who happen to share a particular disability and a group of individuals who happen to share a particular skin color, ethnic origin, or religious belief. An obvious similarity is the size of the group. Discrimination is effective only when the group being discriminated against is considerably smaller than the discriminating group. Obviously this definition would hold for the blind. Similarities, however, do not end there. Is there not also discrimination in education, employment, civic and social organizations, to name but a few?

Possibly the problem is even greater for

blind persons in that they experience kinds of discrimination that do not exist for other minority groups. One example is architectural barriers to free mobility and access—barriers only for blind and other handicapped individuals. Even today there is discrimination against blind individuals who use dog guides to travel. How many employers immediately rule out consideration of a blind person, even before he has an opportunity to demonstrate what he can do? And what about the insidious discrimination by sighted colleagues who will, through gestures and facial expressions, carry on a "conversation" from which the blind participant is excluded. A simple rolling of the eyes often can discredit what a blind person is saying. It is the author's belief that discrimination against the blind is greater than that against other minority groups and that its effects are felt more often and more poignantly by the blind.

Now you can teach a blind child to read print

Soon this blind child will be able to read ordinary children's books. One day he will be able to read novels, textbooks, sets of instructions, and his own name in a telephone directory. He is learning to use the Optacon, an electronic device that converts the visual images of letters into tactile forms he can feel. Right now he needs the help of a teacher who can assist him with the lessons and training aids. Later all he will need is the Optacon. Then he can read printed material independently whenever he wishes.



A NEW WORLD: When the first Optacons came off the production line in the fall of 1971, a new world was opened up for totally blind people. At hand was independent and immediate access to the world of print; not only books and magazines, but also correspondence, memos, labels, directories, electronic calculator displays, and many other sources of information usually closed off to blind people. Because the Optacon instantaneously converts printed images into tactile form, a whole new way of thinking about blindness was required.

IN THE CLASSROOM: Teachers and parents realized that the Optacon opened up new methods of educating blind children. Blind college students realized that they could study independently, without relying solely on special transcription or reader service. Vocational areas such as mathematics and foreign languages no longer presented major barriers to the blind student.

ON THE JOB: Adult blind people realized that the Optacon could help them find jobs where access to printed or confidential material was required. They found that the Optacon could make their own personal skills and abilities more competitive in a sighted world, that it could give them new freedom, independence, and privacy.

WHO CAN USE THE OPTACON? Normally, anyone with good tactile skills can learn to use the Optacon effectively. Braille

reading ability is a good indicator. Motivation and perseverance are also required to master this challenging but rewarding task.

HOW CAN YOU HELP? About 50 hours of formal, supervised training are required to reach independent reading ability with the Optacon. The first Optacon users had to travel to Palo Alto, California to attend a two-week training course. Today, training is being conducted at a number of agencies and schools throughout the U.S. and Europe. But there are still many blind individuals who could use the Optacon effectively to enrich their lives, but who are unable to travel to a distant city for training. You can help them by establishing an Optacon Training Center in your school or agency now. You would be making it possible for a blind child to read the same books his sighted friends read, and you might be making it possible for a blind person to get a job. Please write or call us at:



TELESENSORY SYSTEMS, INC.

2626 Hanover Street, Box D
Palo Alto, California 94304
(415) 493-2626

Brochures available in print or braille.

The reasons for this discrimination are great and many. Most of them probably center around a lack of education about blindness, what it imposes upon the individual, what his limitations really are, and what the blind person can do to be a full and participating member in society. Probably the field of services for the blind must share in responsibility for this ignorance. One can even conclude from reading Robert Scott's book, *The Making of Blind Men*, that even agencies and organizations serving the blind discriminate against blindness and individuals who happen to be blind.

Possibly one of the main reasons for the discrimination by the general public is lack of education as to what blindness is. There is much confusion about total blindness and legal blindness. There are the old stereotypical attitudes toward the blind.

There is also, the author feels, a shared responsibility on the part of the blind themselves who in many instances do not accept the job of interpreting their blindness to their sighted fellowmen.

Once the similarity between this particular minority group and other minority groups is recognized, it becomes the responsibility of workers for the blind to study the tactics of other groups and to plan a concerted program to overcome prejudice. What is on television today? Commercials and programs (in which ten years ago members of minority groups would have been noticeably conspicuous) now routinely include representatives of minority groups. The message does not center around the "blackness" or "brownness" of the individual; instead it concerns the product or the theme of the story and the "minority status" is incidental. Could we approach the television and movie industry and ask that blind persons be included in scripts, but incidental to the scripts, without "blindness" as the main emphasis or consideration? How about a push for equal housing opportunities for the blind and disabled? Let a blind person walk into a realtor's office and watch the salesmen scatter. The list of possibilities is limited only by our imagination. And whether action takes place is dependent on each reader of this article.

A great step, the author feels, would be to expand the Equal Employment Oppor-

tunity Act to include the mentally and physically handicapped along with other individuals who are covered by the statement forbidding "discrimination because of race, color, religion, sex, or national origin." In essence, the author is suggesting that this be changed to read "discrimination because of race color, religion, sex, national origin, or mental or physical handicap." There is no reason why an employer should discriminate against a mentally or physically handicapped individual because of his handicap if that individual has what is necessary to do the job well. It falls upon the rehabilitation agencies to interpret to the employer the fact that these persons can do the job and can do it in a manner that is acceptable to him in all ways. Having members of disability groups covered by the Equal Employment Opportunity Act would open many doors for employment of handicapped individuals. When a client is discriminated against, he would then have some recourse in that the E.E.O. people would investigate his allegations and bring about necessary action to preclude such discrimination.

Certainly, this should be coordinated with the current push on removal of architectural barriers, the push to develop new employment opportunities for the mentally and physically handicapped, the push to find greater integration of disabled individuals into society and the American way of life. The challenge is there, waiting for us.

Mr. Winkley is the administrator of the Criss Cole Rehabilitation Center, Texas State Commission for the Blind, Austin.

Notes on Jogging

Nathan Micay

I read with interest the article "Jogging and the Blind Veteran," by Richard W. Webster (*New Outlook*, March 1973, pp. 116-18). I have been jogging for the past seven years at a local "Y" as well as on outdoor tracks, street sidewalks, village roads, and, in fact, any surface available.

Our present facility at the "Y," which is about to be superseded by a new track, consists of a rectangular gymnasium of rather smallish size (a one mile run re-

quires 25 laps around this gym). At times there may be any of the usual impedimenta found in a gymnasium: hockey goals, volleyball nets, climbing ropes, to say nothing of the timekeepers' tables in the corners.

My total vision consists of light projection, and my ability to see overhead spotlights is certainly helpful, but I found Mr. Webster's technical dissertation somewhat amusing. If I had a mobility instructor who asked me to hold on to a white cane with another runner, I am certain I would never have run. What actually happened and what made me, I hope, a lifetime runner was a suggestion by the physical education instructor at the "Y" that I try running with him. During the previous two years he had coached me in swimming. Prior to his coaching and encouragement, I was barely able to negotiate two lengths of the pool, approximately 50 yards. After two years with Bill Nemeth, I could swim a mile easily.

On our first attempt in the gym, I simply grasped his left arm and ran. After a while I found that I could easily stay with him by holding onto his left shoulder lightly. The whole trick, I found, in running in a tightly packed gymnasium with other runners, was to make sure that my right side was protected so that I did not crash into any walls or corners. Negotiating the approximately 100 turns that it takes to do a mile was no real problem.

After some experimentation, I found the best way to run with someone was to touch elbows and lower arms so that we could both swing our arms rhythmically and could keep in perfect stride as long as we cared to. On many occasions, I have done three miles in this manner without missing a stride.

It was a revelation to me that I could run because in my high school days, when I had 20/200 vision, no one bothered to encourage me to try the sport even though at that time I could easily have negotiated the track without help. Times have changed, however, and I know from personal experience that many blind school children are being assisted by dedicated coaches and physical education teachers.

Jogging, or running as I prefer to call it, has had fringe benefits which for me are at least as important as the improvement in

physical fitness and well being. I have met and become friends with almost everyone who runs at our "Y." On many occasions, when I enter the door of the gymnasium, I receive two or three invitations and invariably accept the first one, even though I know I may be rejecting a better runner. I receive many phone calls and invitations to run and am often transported to the "Y" by my running partners. All of these experiences have proven to be very gratifying and rewarding and I hope that other blind persons will try it.

I started running when I was 48 years old and within two years, or less, I could run two or three miles easily. What I like about my system is that I can teach anyone to run with me in less than one lap, which is about 20 seconds in time. I have run on the shores of the Atlantic Ocean at Miami Beach, on the Hills of Judea in Jerusalem, on the desert at Las Vegas, and, what was probably the high point of my running career, in the Astrodome in Houston with

John Norlander, the ex-professional basketball player, as my partner.

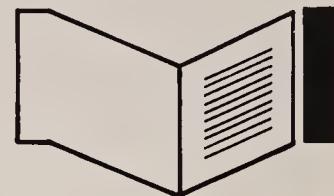
As a blind runner, completely dependent on his partner, I must of course adjust my speed to that of my companion; if there is any drawback in my system, this is where it comes in. If he is unusually slow, I must accept this good-naturedly and encourage him. If he is young and fast, I have the immediate problem of keeping up with him. If he is long-winded and fast, the task demands tenacity and stamina. My fragile ego seldom permits me to ask my partner to slow down for my sake. Occasionally I drop out, for as the saying goes, "To stay young, keep company with young people; to die young, try to keep up with them."

I have used the same techniques, with slight variations, for roller-skating and ice-skating. A blind person who has good balance and good physique, can easily learn to rollerskate and ice-skate with anyone in any rink. The technique is a simple one:

stay on the inside, grasp your companion's hand firmly by putting his or her fist in your palm, put his or her arm on the inside of your arm, and keep a constant pressure with your right arm against your companion's body; in this way, you can constantly feel the person with whom you are skating and you can negotiate any number of tricky or fast turns because you are protected as long as the person with whom you are skating allows sufficient room for you on his or her left. After two or three turns around a rink, any blind person who is well-oriented will have no difficulty. I call my technique "Keeping in Touch" and there is no better way to develop a relationship with a fellow human being. It's much more fun than grasping the same cane together.

Mr. Micay is a resident of Winnipeg, Manitoba.

Current Literature



A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

Cognitive Patterning in the Blind, by Herman A. Witkin, Philip K. Oltman, Joan B. Chase, and Florence Friedman. In *Cognitive Studies, Vol. 2: Deficits in Cognition*, edited by Jerome Hellmuth. New York: Brunner/Mazel, Inc., 1971, pp. 16-46. The first section of the chapter is adapted from a paper published in *Child Development*, Vol. 39, No. 3, September 1968, pp. 767-786, entitled "Cognitive patterning in congenitally totally blind children." The second section adds information concerning adventitiously totally blind retinoblastoma

children. Reprint requests should be addressed to Dr. Herman A. Witkin, Educational Testing Service, Division of Psychological Studies, Princeton, New Jersey 08540.

Intelligence of Retinoblastoma Patients and Their Siblings, by Eugene A. Levitt, Arthur L. Rosenbaum, Lee Willerman, and Marc Levitt. *Child Development* (University of Chicago Press, 5750 Ellis Avenue, Chicago, Illinois 60637), Vol. 43, No. 3, September 1972, pp. 939-948. Both sighted and blind retinoblastoma patients were compared with their normal siblings. Standardized intelligence tests were used. Reprint requests should be addressed to Arthur L. Rosenbaum, Jules Stein Eye Institute, Cen-

ter for the Health Sciences, University of California, Los Angeles, California 90024.

Adaptations of Psychological Testing for Use by the Blind, by Carolyn Carney. *Journal of School Psychology* (University of Akron, College of Education, Akron, Ohio 44304), Vol. 10, No. 2, June 1972, pp. 221-223. The author, a blind psychological examiner, describes the adaptations of projective personality and intelligence tests which enabled her to administer them independently. Reprints should be requested from the author at the Learning Resources Center, University of California, Riverside, California 92502.

A Note on the Semantic Structures of the School-Related Attitudes in Exceptional

Children, by Elizabeth C. Thomas and Kaoru Yamamoto. *The Journal of Psychology* (Journal Press, 2 Commercial Street, Provincetown, Massachusetts 02657), Vol. 81, No. 2, 1972, pp. 225-234. The study involved four groups of exceptional middle-school and high-school age children: the retarded, the seriously disturbed, the blind, and the deaf. Reprints should be requested from the first author at the University of Arkansas, College of Education, Fayetteville, Arkansas 72701.

Sensory Perception Thresholds in Patients With Juvenile Diabetes and Their Close Relatives, by Ronald H. Chochinov, Leslie E. Ulyot, and John A. Moorhouse. *The New England Journal of Medicine* (10 Shattuck Street, Boston, Massachusetts 02115), Vol. 286, No. 23, June 8, 1972, pp. 1233-1237. Report on the measurement of five sensory thresholds: light-touch perception; two-point discrimination (of both toe and finger); critical flicker-fusion frequency; auditory-fusion frequency; and electric taste. Reprints should be requested from John A. Moorhouse, M.D., Room G449, Winnipeg General Hospital, 700 William Avenue, Winnipeg 3, Manitoba, Canada.

Cutaneous Sensitivity During Prolonged Visual Deprivation: Role of Interpolated Testing, by John P. Zubek, Michael Bross, and W. Gelfant. *Perceptual and Motor Skills* (Box 1441, Missoula, Montana 59801), Vol. 36, No. 3, Pt. 1, June 1973, pp. 823-826. Measures of pain and pressure sensitivity were made on 14 blindfolded subjects at intervals of 0, 3, and 7 days of constant darkness.

Verbal Instructions Used by Mobility Teachers to Give Navigational Directions to Their Clients, by Grahame James, John Armstrong, and Dennys Campbell. *The New Beacon* (Royal National Institute for the Blind, 224 Great Portland Street, London W1N 6AA, England), Vol. 57, No. 672, April 1973, pp. 86-91. Analysis of questionnaire replies from 21 mobility instructors surveyed for the purpose of assessing methods commonly used in presenting directions to clients.

Strategies in Scanning a Tactual Pseudomap, by Edward P. Berlá. *Education of*

the Visually Handicapped (1839 Frankfort Avenue, Louisville, Kentucky 40206), Vol. 5, No. 1, March 1973, pp. 8-19. Report on an investigation of efficiency resulting from training in different types of search patterns. The scanning strategies were vertical or horizontal with the added dimension of also testing the use of one or two hands in scanning the display.

"Read It. Say It Fast!" The Use of Distar Instructional Systems With Visually Impaired Children, by William H. Miller and Jeffrey E. Porter. *Education of the Visually Handicapped* (see address above), Vol. 5, No. 1, March 1973, pp. 1-8. The Distar Instructional System, developed by Siegfried Engelmann and his associates and published by Science Research Associates, contains programs to teach reading, language, and arithmetic. Portions of the language and reading programs were adapted in large print and braille and used in teaching sample groups of both partially sighted and totally blind children at the Virginia School for the Deaf and the Blind, Staunton.

A Study of the Reliability and Validity of the Visual Efficiency Scale With Pre-School Children, by Randall Harley, John Spollen, and Susan Long. *Education of the Visually Handicapped* (see address above), Vol. 5, No. 2, May 1973, pp. 38-42. Report of an investigation using the 1970 edition of Natalie Barraga's Visual Efficiency Scale with normally seeing preschool children. Further research is planned which will test it with low vision children.

Relationships Between Creative Thinking, Intelligence, and Teacher-Rated Characteristics of Blind Children, by Gerald Halpin, Glennelle Halpin, and Murray H. Tillman. *Education of the Visually Handicapped* (see address above), Vol. 5, No. 2, May 1973, pp. 33-38. Report on a study to determine whether or not significant relationships exist between creative thinking as measured by the Torrance Tests of Creative Thinking and teacher ratings of mobility, adjustment to blindness, social acceptance, dependence-independence, conformity, rigidity, curiosity, and academic achievement.

Read As Fast As You Can, by Karen Gearreald. *The Braille Forum* (106 N. E. 2nd

Street, Oklahoma City, Oklahoma 73104), Vol. 11, No. 5, March-April 1973, pp. 10-14. Report by a participant in the first workshop on rapid reading of braille, conducted by Dr. Vearl McBride at Brigham Young University in July 1972.

Teaching Braille to Adults, by Michael F. Turner. *Focus* (Dominion Association of the Blind, 42 Wharf Road, Herne Bay, Auckland, 2, New Zealand), March 1973, pp. 55-61. Summary of a report based on a survey of agencies and institutions in the United States and Britain regarding current policies and practices in the teaching of braille to newly-blinded adults.

Camping for the Physically Handicapped: A Rationale and Approach, by Gary M. Robb. *Rehabilitation Literature* (National Easter Seal Society for Crippled Children and Adults, 2023 W. Ogden Avenue, Chicago, Illinois 60612), Vol. 34, No. 5, May 1973, pp. 130-133. The author serves as director of Camp Allen for Handicapped Children in Bedford, New Hampshire. The camp, established in 1931, accepts all physically handicapped children—the blind, the cerebral palsied, the deaf, those with spina bifida or muscular dystrophy, as well as many others with mild, moderate, or severe disabilities.

The Blind Visionary, by Suzanne Bailey. *Dialogue* (3100 Oak Park Avenue, Berwyn, Illinois 60402), Vol. 12, No. 1, Spring 1973, pp. 78-80. The story of Barbara Dawson who was blinded by shattered eye-glass lenses in a 1964 automobile accident. Mrs. Dawson has been in the forefront of the struggle that succeeded in getting the safety-lens law passed in her home state of Massachusetts and approved for the whole nation. Reprinted from the February 1972 issue of *Good Housekeeping Magazine*.

Manual para Padres de Niños Sordo-Ciegos [Handbook for Parents of Deaf-Blind Children], by Jeanne Esche and Carol Griffin. East Lansing, Michigan: Michigan School for the Blind, [1973?], 24p., illus. Requests for this Spanish language handbook (or the previously issued English edition) should be addressed to the Michigan School for the Blind, Deaf-Blind Department, 715 Willow, Lansing, Michigan 48906.

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind, prepared by the editors. Please write to the source listed in each entry if copies or more information are desired; the materials are not available from the New Outlook or the American Foundation for the Blind.

Accreditation

State Certification Requirements for Education of the Handicapped. State-Federal Information Clearinghouse for Exceptional Children (Council for Exceptional Children, Publication Sales, 1411 South Jefferson Davis Highway, Arlington, Virginia 22202), November 1972, 86p. \$2.00.

Agency Administration

Cryptography and Computer Privacy, by Horst Feistel. *Scientific American* (415 Madison Avenue, New York, N.Y. 10017), Vol. 228, No. 5, May 1973, pp. 15-23. The use of ciphers in preventing the unauthorized use of computerized data and programs.

The Ethics of Supervision, by Charles S. Levy. *Social Work* (National Association of Social Workers, 49 Sheridan Avenue, Albany, N.Y. 12210), Vol. 18, No. 2, March 1973, pp. 14-21.

Legislative Activities of Charitable Organizations, by Irene Blichstein. *Washington Bulletin* (Social Legislation Information Service, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036), Vol. 23, No. 10, May 28, 1973, pp. 41-44. A review of proposed federal legislation concerning the

circumstances under which charitable organizations may make known their informed views on issues affecting legislation without detriment to their tax-exempt status.

Aging

Community Care, Categories and Institutions: More Choice or Less for the Aged and Handicapped? by Robert Morris, D.S.W. *Washington Bulletin* (Social Legislation Information Service, 1346 Connecticut, N.W., Washington, D.C. 20036), Vol. 23, No. 8, February 18, 1973, pp. 9-12.

The Nursing Home: A Social Work Paradox, by Jordan J. Kosberg. *Social Work* (National Association of Social Workers, 49 Sheridan Avenue, Albany, N.Y. 12210), Vol. 18, No. 2, March 1973, pp. 104-110.

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

Nursing Home Care. Medical Services Administration, U.S. Social and Rehabilitation Service. 32p. 45 cents. (Available from Consumer Product Information, Public Documents Distribution Center, Pueblo Colorado 81009—request stock number 113A.) This booklet provides basic information for the consumer and describes the kinds of care and services found in good nursing homes, including an item-by-item checklist for use in judging and selecting these facilities.

Three Community Systems of Services to the Aging, by Donald F. Simpson and Frank G. Farrow. *Social Casework* (Family Service Association, 44 East 23rd Street, New York, N.Y. 10010), Vol. 54, No. 2, February 1973, pp. 96-104.

Communication Skills

Bell: Alexander Graham Bell and the Conquest of Solitude, by Robert V. Bruce. Little, Brown & Co. (34 Beacon Street, Boston, Massachusetts 02106), 1973. 564p. Illus. \$12.50. A new biography of the inventor of the telephone, chronicling his life-long interest in the communication problems of deaf persons and including his friendship with Helen Keller.

Education

Accountability in Special Education, by Glenn A. Vergason. *Exceptional Children* (Council for Exceptional Children, Jefferson Plaza Suite 900, 1411 South Jefferson Davis Highway, Arlington, Virginia 22202), Vol. 39, No. 5, February 1973, pp. 367-373.

The Career Education Concept, by William F. Pierce. *American Education* (U.S. Office of Education; available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Vol. 9, No. 3, April 1973, pp. 4-6. Dr. Pierce is deputy commissioner for occupational and adult education, U.S. Office of Education.

Career Education in Syracuse. *Today's Education* (National Education Association, 1201—16th Street, N.W., Washington, D.C. 20036), Vol. 62, No. 2, February 1973, pp. 24-27. A short, illustrated article on the programs of the Guided Occupational Orientation Program in Syracuse, N.Y.

Pamphlets

Blindness Need Not Be Disabling. An illustrated pamphlet describing the Counselor-Teacher Program for the Blind of the California State Department of Rehabilitation (714 P. Street, Sacramento, California 95814).

The Broadcasting Foundation of America (52 Vanderbilt Avenue, New York, N.Y. 10017) has published a packet of programming and background information. A non-profit educational organization producing and distributing spoken word and classical music audiotapes, BFA's programming includes news analysis and press reviews; music festivals; science, education, literature, and the arts; contemporary conversations (interview programs); and special leisure-time listening. A convenient price list-order form is included.

"Rent Watch" for Social Security Beneficiaries is a brochure published by the Cost of Living Council (Washington, D.C. 20507) to explain "Rent Watch," a nationwide survey designed to prevent illegal rent increases and to assure that the regulations of the Economic Stabilization Program are enforced. The Internal Revenue Service, through its 58 district offices, is the enforcement arm of the Economic Stabilization Program. A directory of IRS offices providing economic stabilization information is also available on request.

Veterans! Ask Yourself These Questions! is a new information bulletin describing 14 different programs of the U.S. Office of Education under which veterans can benefit. Single copies are available free by writing to Veterans, Office of Education, Washington, D.C. 20202.

Two new pamphlets recently published by the American Foundation for the Blind (15 West 16th Street, New York, N.Y. 10011) are **How to Integrate Aging Persons Who Are Visually Handicapped Into Community Senior Programs** and **Seven Careers** (for individuals interested in preparing for a career in the field of work with blind and visually handicapped persons as a teacher, orientation and mobility instructor, rehabilitation teacher, rehabilitation counselor, social worker, therapeutic recreation worker, or occupational therapist.).

Periodicals

Day Care and Early Education, a new bi-monthly produced by Behavioral Publications (2852 Broadway, New York, N.Y. 10025) to serve the field of day care and early childhood education. First issue: March 1973. Subscriptions: \$15 for institutions, \$9 for individuals.

The Visually Handicapped: International Archives for Research. A new biannual journal published by G. Schindele Verlag (7501 Neuburgweier, Alte Rheinstrasse 13a, Western Germany). Contains scientific (educational, medical, psychological, and sociological) contributions, book reviews, and bibliographies concerning the visually handicapped. Languages of publication are English, German, and French—articles have summaries in the other two languages. The first issue was published in April 1972.

Personal Management

What Do You Do After the Doctor Leaves? by Robert Morris. *Harper's Magazine*, January 1973, pp. 89-90. A short analysis of the statistics on the increase of severely disabled survivors of serious accidents and diseases leads this writer to call for the development of a nationwide system of flexible personal-care and home-helper services to supplement the residual ability of the disabled to maintain themselves outside of institutions.

Preschool Children

The Retarded Child From Birth to Five: A Multidisciplinary Program for Child and Family, by Marvin Hunter. John Day (257 Park Avenue South, New York, New York 10010), 1972. \$10.95.

Psychology and Perception

Neurosis in Dogs, by Michael W. Fox. *Saturday Review*, October 28, 1972, pp. 58-63. A discussion by a veterinary surgeon and associate professor of psychology at Washington University, St. Louis, of the effects of man's modern environment and breeding requirements on the behavior and genetic endowment of dogs. Of interest to those who deal with dog guides and their owners.

Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

Recreation

Training Needs & Strategies in Camping for the Handicapped, edited by John A. Nesbitt, Curtis C. Hansen, Barbara J. Bates, and Larry L. Neal. Center of Leisure Studies, University of Oregon (1587 Agate Street, Eugene, Oregon 97403), 1972. 241p. \$3.50. A collection of 28 position papers on research, participation and programs, philosophy, development, integration, operations, and training in the field of camping for the handicapped. Based on papers and proceedings of the National Conference on Training Needs for Personnel in Camping, Outdoor, and Environmental Recreation for Handicapped Children, March 29-April 1, 1972, Asilomar Conference Grounds, Pacific Grove, California, organized by the Therapeutic Recreation Service for Handicapped Children Project, California State University, San Jose.

Research and the Classroom: Mahomet and the Mountain Revisited, by Leonard S. Blackman. *Exceptional Children* (Council for Exceptional Children, Jefferson Plaza Suite 900, 1411 South Jefferson Davis Highway, Arlington, Virginia 22202), Vol. 39, No. 3, November 1972, pp. 181-191. A discussion of the dissemination lag or research-classroom gap in which the author, professor of education, Teachers College, Columbia University, New York City, cites the aptitude-treatment-interaction analysis model as a middle ground between single case and group mean comparison models, the former being cumbersome and the latter not too productive. More research efforts should be directed to the practical goals of classroom teaching rather than purely theory-oriented problems (although these are not to be completely excluded).

Residential Needs of Severely Physically Handicapped Non-Retarded Children and Young Adults in New York State, by John Fenton and Robert E. Ayers. Institute of Rehabilitation Medicine (400 East 34th Street, New York, New York 10016), 1972. xvii + 188p. \$2.50. Rehabilitation Monograph

No. 46. This is the last in a series of four reports prepared by the New York State Interdepartmental Health and Hospital Council and the Governor's Council on Rehabilitation. The report is reviewed in the context of the recent concern for the rights of children by Florence M. Stattel in the November 1972 issue of *Rehabilitation Literature* (pp. 332-334).

Social Work

Is Group Counseling Neglected? Re-entry Into Society, by Susanne M. Owen. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N.W., Washington, D.C. 20005), Vol. 38, No. 6, November-December 1972, pp. 12-15. A detailed discussion of the ways in which group counseling can be used and can contribute positively to the readjustment of handicapped persons to family and community life.

Statistical Surveys

Employees in Nursing Homes: United States, April-September 1968. National Center for Health Statistics, Health Services and Mental Health Administration, U.S. Public Health Service. *Vital and Health Statistics* (available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Series 12, No. 15, DHEW Publication No. (HSM) 73-1700, October 1972, iv + 57p. \$1.00. Data on full-time, part-time, and full-time equivalent employees in nursing homes, by job category, service, ownership, size, and region. Percentage of health work force employed in nursing homes, ratio of full-time equivalent employees to residents, and skill of charge nurse for each shift. Comparison of number of employees and staffing pattern for 1964 and 1968.

Testing

The IQ Cult, by Evelyn Sharp. Coward-McCann (200 Madison Avenue, New York, New York 10016), 1972. 154p. \$5.95. An appraisal of the current controversy over intelligence testing, including a discussion of the work of Binet, Terman, Wechsler, and

Otis. Recent concepts of intelligence developed by Piaget and others are also discussed. Written for parents, education students, and other non-specialists.

Vocational Rehabilitation

The Facility You Choose—Will Using a Facility Help Your Client? by Donn Brolin. *Journal of Rehabilitation* (National Rehabilitation Association, 1522 K Street, N.W., Washington, D.C. 20005), Vol. 39, No. 1, January 1973, pp. 24-26. A guide to evaluating a rehabilitation facility in terms of its value for a particular client and how to contribute positively to the client's success in a facility once it is decided that he can benefit from its program.

Some Viable Service Delivery Approaches in Rural Rehabilitation, by James A. Bitter. *Rehabilitation Literature* (National Easter Seal Society for Crippled Children and Adults, 2023 West Ogden Avenue, Chicago, Illinois 60612), Vol. 33, No. 12, December 1972, pp. 354-357. A discussion of the characteristics of successful rural rehabilitation programs in Indiana, Kentucky, Minnesota, Montana, North Dakota, Ohio, Oklahoma, Utah, West Virginia, Wisconsin, and Wyoming.

Special Report 1972-2: Some Current Concerns of Rehabilitation Facilities. U.S. Rehabilitation Services Administration, 1972. 35p. DHEW Publication No. (SRS) 73-25052. A limited number of copies are available from the Division of Service Systems, U.S. Rehabilitation Services Administration, Washington, D.C. 20201. The report was presented at the Third Annual Conference of the International Association of Rehabilitation Facilities, Chicago, Illinois, May 7-10, 1972.

Welfare

What It Is and How to Do It. Pennsylvania Department of Public Welfare, Bureau of Public Education (Harrisburg, Pennsylvania 17120). A manual for governors and welfare officials interested in adopting Pennsylvania's Direct Delivery System—welfare checks are picked up by recipients at neighborhood banks instead of being sent through the mail.

PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

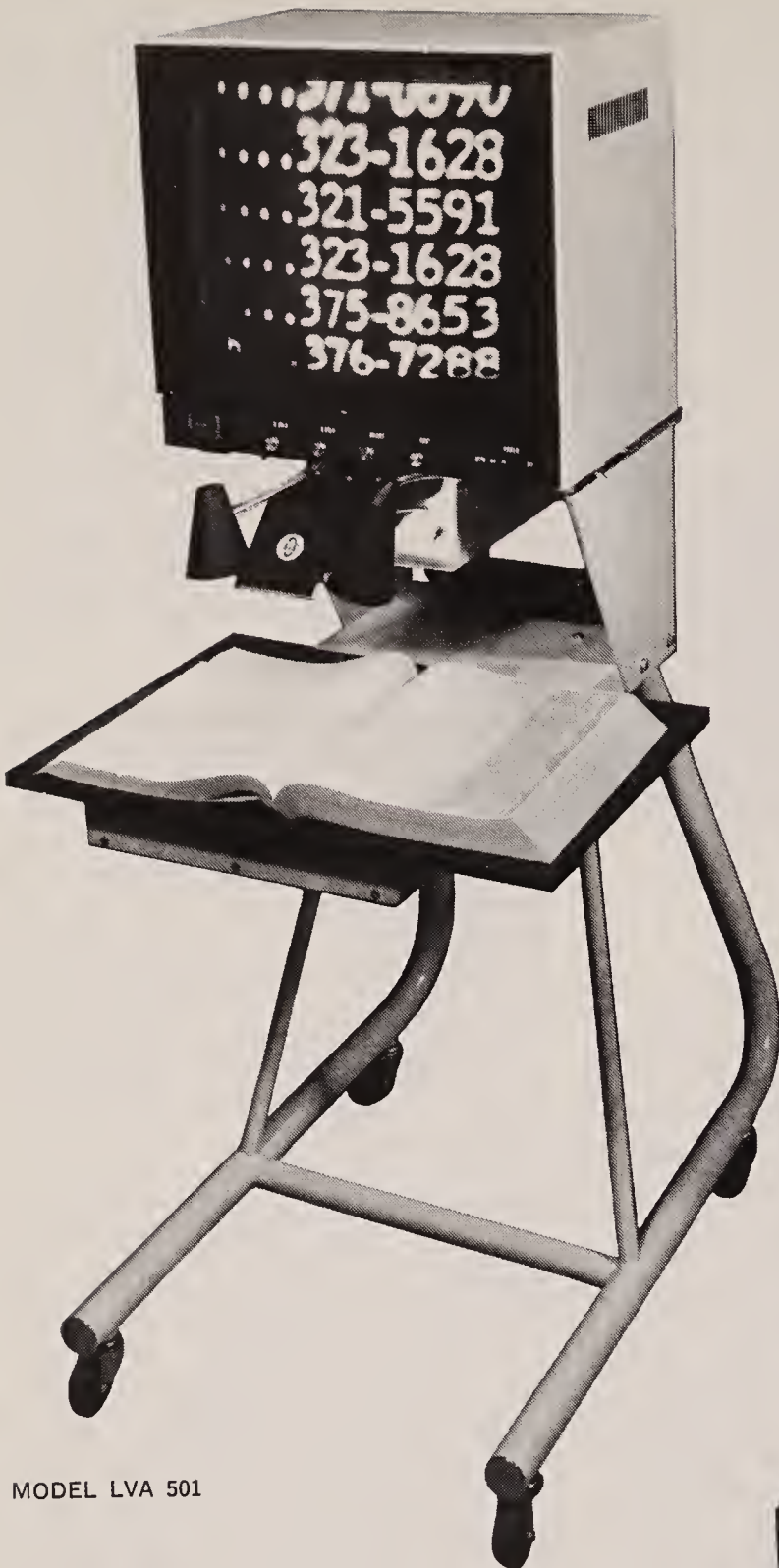
Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

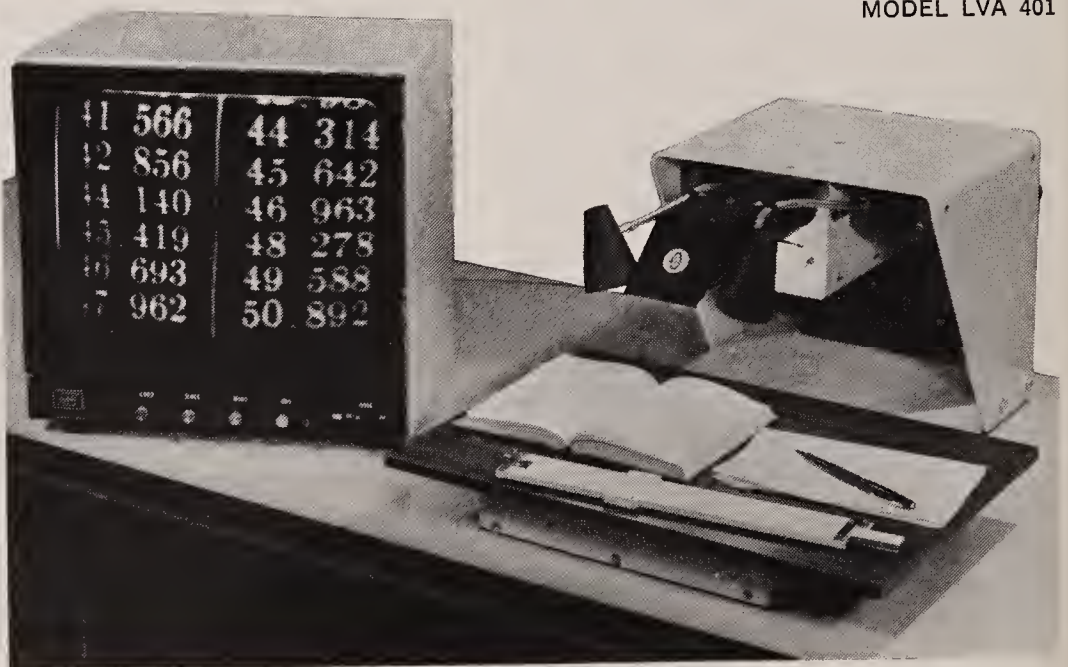
FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)



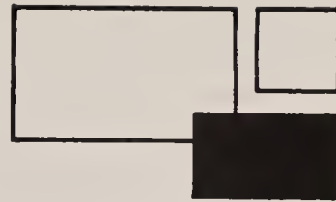
MODEL LVA 501



MODEL LVA 401



351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402



■ The National Rehabilitation Association has established the Mary E. Switzer Memorial Fund. Chief among its objectives will be a scholarship or fellowship program to assist individuals who have decided to devote their lives to helping handicapped people and who need financial support to pursue their life's goals. The Fund is chaired by Mrs. Olive Bannister and will be administered by the NRA's Board of Directors.

■ WBAI, a non-commercial, listener-supported FM radio station in New York City, has initiated a new weekly series, called "Not Without Art," focusing on the relationship between the arts and the handicapped community. The programs include a wide range of news, reviews, interviews, and produced segments. Among the first programs aired in the series were ones on art for the blind in Philadelphia (including a visit to the Nevil Gallery for the Blind and Sighted), a discussion with staff of the Deafness Research and Training Center (New York University), a portion of a performance by the Lighthouse Players (theatrical company of the New York Association for the Blind), an interview with the curator of the Hartford Athenaeum's Tactile Gallery, and an interview with the director of the National Theater of the Deaf.

■ Dr. Hewitt D. Crane and his associates at Stanford Research Institute, Menlo Park, California, have developed the optometer, an instrument which instantaneously measures the plane of focus of the eye and determines the points at which the eye ceases to focus correctly. The researchers hope that the device will eventually allow for the automatic fitting of eyeglasses.

■ The National Center for Law and the Handicapped (1235 North Eddy Street, South Bend, Indiana 46617) was founded by the National Association for Retarded Children, Notre Dame University, the Council for the Retarded of St. Joseph County (Indiana), and the Family Law Sec-

tion of the American Bar Association to develop planned approaches to the court so that the constitutional right of handicapped persons to equal protection under law is protected. The center, funded by a grant from the U.S. Department of Health, Education, and Welfare, will seek the successful resolution of legal questions concerning disabled persons and will publicize their gains on a national level, as well as giving advice to individuals and groups who plan court action.

■ The New York State law requiring that blind persons be given the right of way when crossing a street or highway has been changed so that it includes all blind persons using a metallic or white cane or a dog guide. The law formerly required that the blind person be carrying his cane in a raised or extended position.

■ The American Association of Community and Junior Colleges maintains a Career Staffing Center for its member institutions and those individuals who would like to be considered for staff positions at more than 900 member colleges. Details are available from the AACJC Career Staffing Center, P.O. Box 298, Alexandria, Virginia 22314.

■ The Jewish Braille Institute of America (110 East 30th Street, New York, N. Y. 10016) has announced that it is sponsoring the Tenth International Literary Braille Competition. The judges for the contest are Joyce Carol Oates, Chaim Potok, and Santha Rama Rau. About \$5,000 in prizes will be awarded. The deadline for entries is December 30, 1973.

■ Tapes for the Blind, Inc. (12007 Suite 2 South Paramount Boulevard, Downey, California 90242), a nonprofit organization sponsored by the Lions Club of Downey, supplies magnetic recording tape to blind and physically handicapped persons at greatly reduced prices, including tape one-mil and one-and-a-half-mils thick, one-quarter-inch wide, on three-, five-,

and seven-inch reels, as well as C-30, C-60, and C-90 tape cassettes.

■ The Midwest regional office of the American Foundation for the Blind has been moved. The new address is 500 North Michigan Boulevard, Suite 738, Chicago, Illinois 60611. The new telephone number is (312) 321-1880. Jessamine Cobb, regional consultant based at this office, provides field consultation to agencies, schools, and other organizations concerned with blind persons in Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, and Wisconsin.

Additions

■ In the "From the Field" column of the March 1973 issue of the *New Outlook* on the subject of closed-circuit television reading systems, the following manufacturer was inadvertently not listed: Tele Com Enterprises, Inc., 8610 Airport Boulevard, Los Angeles, California 90045. The Tele/-Sight CCTV system marketed by Tele Com is portable and features a 12-inch solid-state monitor and variable magnification up to 27X.

■ In the "From the Field" column of the June 1973 issue of the *New Outlook* on the subject of radio stations and programs for blind persons, the following station was inadvertently not listed: WJGF. This 10-watt, non-commercial educational FM station is operated by blind students at the West Virginia School for the Deaf and the Blind, Romney. In addition to broadcasting programs in the areas of health, science, and history and for general entertainment (music, news, sports, etc.), the new station is to be used for the training of blind students interested in careers in broadcasting. Both the station manager and the program director are blind students. George Free-land acts as faculty advisor for the station.

Appointments

■ Overbrook School for the Blind, Philadelphia: **Norman Reimer**, principal.

■ National Retinitis Pigmentosa Foundation, Baltimore: **Dennis L. Hartenstine**, national executive director.

■ National Rehabilitation Counseling Association, Washington, D.C.: **Fletcher R. Hall**, executive director.

■ New York Association for the Blind, New York City: **Donato Capozzoli**, director of recreation and camping services.

■ Library of Congress, Division for the Blind and Physically Handicapped, Washington, D.C.: **Frank Kurt Cylke**, chief.

■ Vision Center of Central Ohio, Columbus: **Barry A. McEwen**, director of rehabilitation.

■ U.S. Department of Health, Education, and Welfare, Office of Human Development, Administration on Aging: **Arthur S. Flemming**, commissioner on aging; **Stanley B. Thomas, Jr.**, acting assistant secretary.

■ National Institutes of Health, National Eye Institute: **Elmer J. Ballintine, M.D.**, clinical director.

■ American Foundation for the Blind, New York City: **Jay Feinberg**, manager, Aids and Appliances Division.

■ Cleveland Society for the Blind: **Norman Yoder, Ph.D.**, associate executive director for rehabilitation.

Awards

■ National Accreditation Council for Agencies Serving the Blind and Visually Handicapped, 1973 Award (for outstanding leadership in improving standards of service to blind persons nationwide): **Marjorie S. Hooper**, editor, American Printing House for the Blind, Louisville, Kentucky.

■ Massachusetts College of Optometry, Boston, honorary doctorate of humane letters: **Frances Ilg, M.D.**, noted vision researcher and director of the vision department of the Gesell Institute.

■ U.S. Civil Service Commission, Outstanding Handicapped Federal Employee of the Year Award, 1973: **Irvin Hershowitz**, a blind telephone repairman, Department of the Air Force, Bolling Air Force Base, Washington, D.C.

■ Recording for the Blind, New York City, 1973 Scholastic Achievement Awards to four outstanding college graduates who are blind: **Michael B. Hingson**, Palmdale, California (University of California, Irvine); **John Monroe Krafft**, Springfield, Ohio (Miami University, Oxford, Ohio); **Jon Scott Marshall**, Rochester, New York (University of Rochester); and **Rebecca Jean Matheny**, Pekin, Illinois (University of Illinois, Champaign.)

■ American Association of Workers for the Blind: Alfred Allen Award—**J. Kenneth Cozier**, Cleveland; W. Alfred McCauley Award—**Nicholas Williams**, Virginia; Ambrose Shotwell Award—**Robert S. Bray**, Virginia.

■ American Association of Workers for the Blind, Illinois Chapter, Humanitarian Award: **Alexander Skrzypek**, director, Services for the Blind, Chicago Public Library.

■ National Federation of the Blind in the United Kingdom, Louis Braille Award: **Fred Thorpe, O.B.E.**, chairman and managing director, Ulverscroft Large Print Books Ltd., Leicester, England.

Coming Events

September 10-12 Institute of Gerontology, 26th Annual Conference on Aging (Theme: "Women: Life Span Challenge"), Ann Arbor, Michigan.

September 15 Liaison Committee on Geriatric Blindness—American Foundation for the Blind and the American Geriatrics Society, Annual Symposium (Theme: "The Visually Impaired Geriatric Patient: Challenges for the Present and the Future; Challenges for the Visual Sciences"), Dallas, Texas.

September 17-19 State Conference on Attitudes Toward Blindness (Michigan Chapter, American Association of Workers for the Blind and State Services for the Blind), Grand Rapids, Michigan.

October 25 American Foundation for the Blind, Foundation Day, New York City.

October 26-28 Dialogue Magazine, Writer's Seminar for Blind Persons, Oak Park, Illinois.

October 29-31 National Rehabilitation Association, National Conference, Atlantic City, New Jersey.

November 5-9 Gerontological Society, with the American Geriatrics Society, 26th Annual Scientific Meeting (Theme: "The Contribution of Gerontology to the Improvement of the Quality of Life"), Miami Beach, Florida.

November 9-10 New York Association for the Blind, Seminar on Low Vision, New York City.

December 7-9 Association for Advancement of Behavior Therapy, Seventh Annual International Convention, Miami Beach, Florida.

1974

April 21-27 Council for Exceptional Children, 52nd Annual International Convention, New York City.

Classified Listings

Rates: Non-display—\$2.00 per line (minimum: \$10.00); Display—\$13.00 per column inch (minimum: one inch). Anonymous, box-numbered ads are only accepted for personnel listings. Advertising is subject to editorial approval. A rate and information card is available on request. All correspondence should be directed to the Classified Advertising Department, New Outlook for the Blind, 15 West 16th Street, New York, N.Y. 10011.

AIDS AND APPLIANCES

Instruments, Recreation Equipment. Complete catalog on request. Science for the Blind, Bala-Cynwyd, Pa. 19004.

Crossword Puzzle Set in Braille—with board, letter tiles, and ten puzzles, \$16.75. Puzzle Book No. 2, \$1.25. Aids and Appliances Division, AFB, 15 W. 16th St., New York, N.Y. 10011.

Aud-a-Ball. Sound-source recreation ball for the visually limited. Catch it, kick it, throw it. Locate it by sound. Science for the Blind, Bala-Cynwyd, Pa. 19004.

CATALOGS

Science for the Blind—Catalog on request—221 Rock Hill Road, Bala-Cynwyd, Pa. 19004.

International Catalog of Aids and Appliances for the Visually Impaired, edited by Leslie L. Clark. 224p. \$2.00. Publications Div., AFB, 15 W. 16th St., New York, N.Y. 10011.

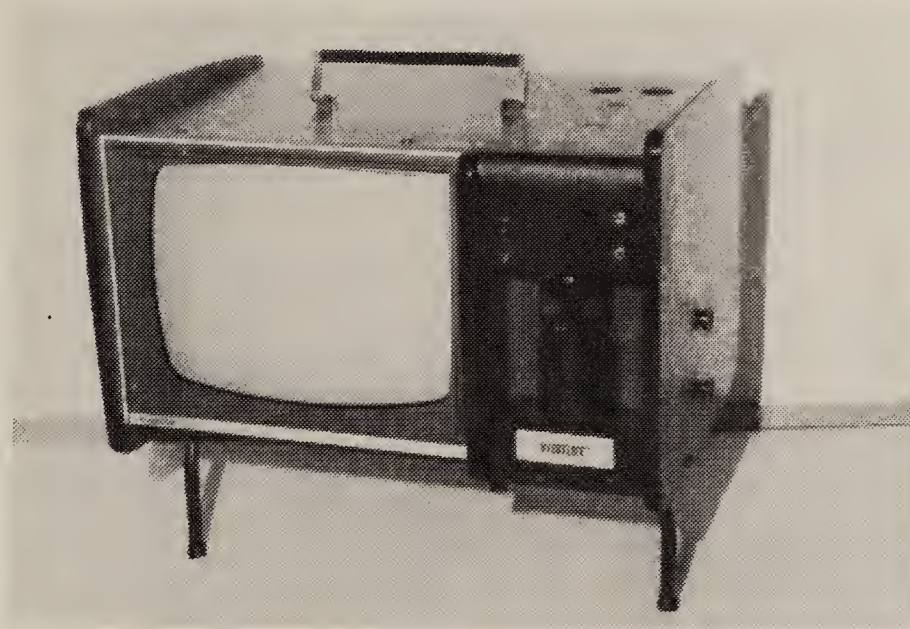
ORGANIZATIONS

JOIN AEVH!

The Association for Education of the Visually Handicapped offers three publications, conferences at the national, regional, and local levels, and opportunities for communication with fellow professionals interested in the education of visually handicapped children. For information write AEVH, 1604 Spruce Street, Philadelphia, Pa. 19103.

• • • For the partially sighted:

NEW THE AMAZING VISUALTEK **MINIVIEWER**^{T.M.}



- Self-contained attractively styled package weighs only 27 pounds
- Optional battery back and recharger allows it to be used anywhere
- 12" diagonal screen monitor
- Variable magnification from x5 to x40
- Built-in illumination
- Optional forward viewing — see blackboards, flip charts, etc. 50' away.

Write for additional information, or see us
at the AAWB show in Cleveland in July.

VISUALTEK 1901 Olympic Blvd. • Santa Monica, Ca. 90404 • (213) 829-3453

Eighteenth Edition

DIRECTORY OF AGENCIES SERVING THE VISUALLY HANDICAPPED IN THE UNITED STATES

CONTAINS state-by-state and city-by-city listing of almost all governmental and private non-profit agencies, institutions and organizations serving the visually handicapped in the United States. Each listing includes the name of the organization, the address, telephone number, name and title of chief executive and a description of services. All branch offices of state rehabilitation agencies also included.

CONTAINS listings for all national governmental and private services for the visually handicapped by category. Categories include federal agencies, associations, sources of reading materials, dog guide schools, university programs in vision. All national agencies cross-referenced in city and state sections.

CONTAINS index of all agencies listed in **DIRECTORY**.

INCLUDES two years of quarterly correction lists.

Price: \$10 per copy

Order from:

**Publications Division
American Foundation for the Blind
15 West Sixteenth Street
New York, New York 10011, USA.**



October 1973
Volume 67
Number 8

THE NEW Outlook FOR THE BLIND

100 Years Ago: The Vienna Congress of Teachers of the Blind
Berthold Lowenfeld, Ph.D.

The Closed-Circuit Television Reading System: Fact or Fiasco?
Gerald R. Friedman, O.D.

A Statement of the Needs of Blind and Visually Impaired Individuals
Gordon B. Connor, Ed.D., and John F. Muldoon, Ph.D.

The Integrated Resource Room for Visually Impaired Children
Rosemary O'Brien, M.Ed.

THE NEW Outlook FOR THE BLIND

October 1973 Volume 67 Number 8

Articles

- 337 100 Years Ago: The Vienna Congress of Teachers of the Blind
 Berthold Lowenfeld, Ph.D.
- 346 The Closed-Circuit Television Reading System: Fact or Fiasco?
 Gerald R. Friedman, O.D.
- 352 A Statement of the Needs of Blind and Visually Impaired Individuals
 Gordon B. Connor, Ed.D., and John F. Muldoon, Ph.D.
- 363 The Integrated Resource Room for Visually Impaired Children
 Rosemary O'Brien, M.Ed.

Departments

- 369 Hindsight
- 371 Review—*From Shelter to Self-Reliance*
- 375 Comment—Miriam H. Lipman
 Billie Louise Bentzen
- 379 Current Literature
- 383 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to \$4.00 according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief
M. Robert Barnett

Executive Editor
Patricia Scherf Smith

Managing Editor
Mary Ellen Mulholland

Associate Editor
Michael E. Monbeck

Assistant Editor
Freida Chapman

Advertising Director
Michael E. Monbeck

100 Years Ago: The Vienna Congress of Teachers of the Blind

ABSTRACT: The First European Congress of Teachers of the Blind, held in Vienna, Austria, in 1873, is described. Its origin and originator, its discussion topics, and its historical importance are discussed.

The year 1873—100 years ago—was a signal one in the history of the education of blind children and implicitly of work for the blind in toto. For the first time educators of the blind, mainly from Europe but also from some other continents, gathered to discuss their problems and to learn from each other how they could be brought closer to solutions. It had taken almost a hundred years before Valentin Haüy's endeavor of providing education for blind children and youth had consolidated to the extent that an exchange of experience on an international scale appeared to be feasible. In these hundred years the one school for the blind that he founded in 1784 in Paris had grown to 150 such schools all over the world interested in each other's work, progress, and failures. This at least must have been the assumption of the man who promoted the idea and did the preparatory work for the Vienna Congress of 1873: Ludwig August Frankl.

□ Ludwig August Frankl (1810-1894) was from a middle-class Czech-Jewish family whose leanings were, like most Bohemian Jews, toward German culture. He attended the Piarist gymnasium in Prague and studied at the University of Vienna to become a doctor of medicine, graduating with an M.D. from the University of Padua. He soon turned to writing poetry and achieved his greatest fame as the author of a poem "The University," the first that was published free of censorship in the March 1848 student movement. It was a stirring poem of a revolutionary character and it took some time of travels and non-political writings to make it politically forgotten. Dr. Frankl did not practice medicine but became in 1838 the secretary of the Viennese Jewish Community, one of the largest in Europe. In 1871 he was appointed a member of the Vienna Board of Education.

As a result of his educational and philanthropic involvements, he recognized the need for a school for Jewish blind children of the Austro-Hungarian Empire because they either had no access to a school for the blind or were denied admission if one was available. Thus, Ludwig August Frankl became the promoter and founder of the Jewish Institute for the Blind Hohe Warte in Vienna. He mobilized outstanding Viennese Jews financially, members of the monied aristocracy among them, and, supported by their interest and contributions and those of the real aristocracy, from Emperor Francis Joseph down, he collected enough funds to make his plan a reality. The final impulse came when Baron Jonas Königswarter donated a completely new building, fully equipped for 50 students and with an extensive garden.

BERTHOLD LOWENFELD, Ph.D.

Dr. Lowenfeld, the author and editor of many books and publications, taught at Teachers College, Columbia University, and served as superintendent of the California School for the Blind.

Ludwig August Frankl

Frankl founds school for Jewish blind

The school opened in December 1872 and remained a center of progressive education of blind children until 1938 when the Nazis dissolved it and most of its pupils became their victims. The building is now occupied by the district office of the Police of the City of Vienna. Frankl was later knighted by the Emperor and received the predicate "Ritter von Hochwart" referring to his association with the Hohe Warte school.

□ On his travels in connection with the founding of the school, Frankl found many excellent things being done and some that were not so worthy of imitation. This convinced him that it "appears timely that the richly available material must at last be consolidated, the individual experiences must be shared, and that the dispersed must be collected and elevated to a scientific status" (Report, p. 5). A congress of directors and teachers of all schools for the blind would be the ideal instrument to achieve these aims. In Frankl's mind Vienna was where such a congress should be held, for three reasons: a large World Exhibition was scheduled to be held there in 1873 attracting many visitors; Vienna was the site of the second-oldest school for the blind in the world and the oldest in any German-speaking country; and it had a new and modern school for the blind to be seen and admired.

Frankl secured the ready cooperation of the authorities and was further encouraged by positive responses from many schools for the blind. A committee was formed of which Frankl was elected president and Mathias Pablasek, the director of the Imperial and Royal Institute for the Education of the Blind in Vienna, vice-president. In November 1871 invitations were sent to all known schools for the blind in the world to meet in Vienna from August 3 to 8, 1873, for the first European Congress of Teachers of the Blind.

Responses arrived from four continents: Europe, North and South America, and Africa. The majority came, as to be expected, from Austria and Germany. Using the political boundaries of 1873, the distribution was: Austria (47), Germany (20), Russia (4), England (3), Sweden (2), Denmark (2), Italy, Spain, Switzerland, and Turkey each one. This is a quite respectable European representation, but to understand it fully one must consider that according to today's boundaries, the Austrian participants included five from Czechoslovakia, four from Hungary, and three from Poland. Among the 20 from Germany were six from Poland, four of them from Warsaw which belonged then to Russia with one relating a message from the Czar, some also from East Germany, and one from Alsace-Lorraine, now in France.

From other continents the following participants were listed: S. G. Howe, director of the Institution for the Blind, Boston; Henri Lavanchy, founder of the Institution for the Blind in Cairo, Egypt; Thomas H. Little, director of the Wisconsin Institution for the Education of the Blind; and Adolf Wilhartitz, teacher of music at the Institute for the Blind, St. Louis.

□ The opening address was delivered by Dr. Frankl who quoted the rhyme "Verehrt, ernahrt, belehrt"—venerated, sustained, educated—as characterizing the history of the blind and expressed the hope that this International Congress "watched by more than a million blind people" will bring assistance and spiritual liberation to them.

Dissolution of school by Nazis

Frankl Conceives Idea of Congress

Preparations for the Congress

Enthusiasm from many countries

The Congress

□ The first paper on "The Blind of America and Their Education" was delivered by Adolf Wilhartitz of St. Louis, who described in a rather spirited and sometimes provocative way the conditions of the blind in America. With the exception of Brazil, Mexico, Canada, and the United States, no other countries in the western hemisphere were providing any education for blind people. He stressed that the institutions for the blind in the United States are part of the public school systems and explained: "Since it is not practical to employ a teacher of the blind in every school district, one building in an easily accessible city is built and children are invited to receive in it free of charge schooling, meals, housing, and laundry. The States are founding and sustaining these institutes not for humanitarian reasons, but as a deterrent against beggary, vice, and crime" (Report, p. 20).

He discussed then the five parts of the instructional program: Primary education, literary education, music instruction, technical (vocational) instruction, and home economics. He referred to the two national conferences, held even before this Congress, in 1871 in Indianapolis, and in 1872 in Boston, where teachers of the blind convened to discuss their problems. He also expressed the wish that blind children, after having studied for a few years in Institutions, should attend schools in their home communities "and thus prepare themselves to live with those with whom they went to school, that is the seeing citizens of their home towns" (Report, p. 22). He closed by invoking against those who shed tears for the blind but do not buy from them, do not accept them as teachers, and do not even regard them as equals. He warned against pity or even compassion because it does not foster independence. Education of the blind is a responsibility of the government and should not depend upon compassion.

There were other participants who described provisions for the blind in their countries, among them a report about the Imperial Institute for Blind Children in Brazil and on statistics of blindness in the Austrian-Hungarian Empire.

□ As to be expected, the question of a generally acceptable reading and writing system took up considerable time in the Congress. The line-up was between braille and New York Point. Ludwig von St. Marie, director of the Institution for the Blind in Leipzig, delivered the main address and took a position decidedly in favor of braille. Braille was also supported in a paper by Alphons Kochlin, director of the Institution for the Blind in Ilzach, Upper Alsace, then Germany. Dr. R. T. Armitage, secretary of the British and Foreign Blind Association in London, and V. Ballu, teacher at the Institute for the Education of the Blind in Paris, submitted papers, both recommending that because of its space-saving quality New York Point should be thoroughly examined. Dr. Armitage's position was remarkable because he later became one of the most ardent advocates of braille. Ballu also reported that he had invented a shorthand system derived from braille that was even less space consuming than New York Point. But he warned against having two systems extant because it would annul all advantages for the blind. All four recognized that braille music notation was superior to New York Point. The report of the Brazil Imperial Institute shows that they had opted for literary as well as musical braille and were actively using both.

The Blind in America

Instructional programs in the U.S.A.

Reports from other nations

Universal System of Reading and Writing

William B. Wait, whose paper was read by Wilhartitz in German, brilliantly summarized first all arguments in favor of a point system against any line print, and then argued strongly for his New York Point because of its space saving property and because the shortest and simplest dot combinations were assigned to letters occurring with the greatest frequency. Only Mathias Pablasek of Vienna unreservedly took his side. Wilhartitz, otherwise very active at the Congress and, being from St. Louis, more likely to be in favor of braille, did not take any stand, probably because he had presented Wait's paper. A resolution to elect a standing committee of five to investigate the whole problem was passed unanimously.

Except for the question of a universal reading and writing system there was practically no discussion about instructional problems except music. However, pre- and post-school conditions received a great deal of attention.

□ Wilhelm Riemer, director and teacher at the Preschool for the Blind in Hubertusburg, Saxony, gave the main paper on preschools (kindergartens) for the blind. He stressed that most blind children come from an environment that handicaps rather than advances them. It is interesting how he describes the then generally prevailing conditions of children: "Parents rarely have time to concern themselves much with their offspring; under the heavy pressure of conditions and under the unrelenting and consuming worries about their daily bread, they have lost their natural gift for educating their children. They view children as nothing but co-earners and await eagerly the moment when they can be put under the yoke of labor and start their public career in the stifling halls of factories" (Report, p. 27). What holds true for children in general is aggravated if the child is blind. These children grow up completely neglected so far as their special needs are concerned either because their parents cannot bother themselves or, in economically better situations, they smother them with pity. Therefore, preschool education must aim at making up for parental sins of omission and of committing mistakes.

Riemer expressed his belief that responsibility for preschool education lies with the government and not with charitable institutions. So far as instruction is concerned, it must be highly individualized and planned for each child according to his needs. Universal for blind children is the need for building up their physical condition and for better development of hand skills. Froebel material and other aids should be used and music and rhythm must accompany physical education. The results of these methods have been excellent during the 11 years of the Preschool for Blind Children in Hubertusburg (founded in 1862).

Gustav Reinhard, director of the Royal State Institution for the Blind, Dresden, supported the points made by Riemer and the Congress later passed unanimously a resolution recommending that preschools for blind children be built as a governmental responsibility.

□ The influence of parents on their blind child was frequently discussed and always in a quite negative manner. The recognition that most parents have a natural love for their children and, if the child is blind, should have special help to understand his needs and to gain more positive attitudes toward him, was not once indicated.

□ As much unanimity as there was about preschool education, as widely di-

Preschool (Kindergarten) Education

Instruction in preschools

Influence of Parents

After-School Provisions

vergent were the opinions about what should be done to assist those blind persons who have finished their period of schooling. There was unanimity only concerning the fact that the practical results of educating the blind were disappointing and something needed to be done to improve their after-school conditions. Two highly respected men carried the torch in these discussions, Johannes Moldenhawer, director of the Royal Institute for the Blind, Copenhagen; and Gustav Reinhard, director of the Royal State Institution for the Blind, Dresden.

Moldenhawer agreed with Riemer that preschool education is a necessity. It would prevent the problem of blind children entering school when nine-twelve years of age. This is too late since their education must be compressed into seven-eight or even four-six years. At an age when seeing youngsters become apprentices, blind ones must fend for themselves. He recommended earlier beginning and later completion of schooling. He spoke in favor of simultaneous academic and workshop instruction, the latter conducted under sighted "masters." While it does not seem realistic to expect blind girls to earn a living, young blind men should early be placed in a situation where they learn to work for their bread and get used to assuming responsibility for their work. Moldenhawer noted the difference between the British workshops where there is factory-like division of labor and other countries where a single worker completes the whole job, so that he can later establish himself independently. He strongly advocated the setting up of what we would now call half-way houses for blind craftsmen in order to give them the equivalent of the master-apprentice period and relationship.

Gustav Reinhard spoke on a related theme, "The Technical Training of the Blind and the After-care for Those Who Are Discharged From the Schools." He first reported in detail that at the Saxonian Institute in Dresden children from the age of 11 must spend at least three hours a day in workshops. Girls are most limited in their choice of work, being confined mainly to knitting, chair-caning, and braiding of hair. The choice of the male blind is wider, but the Dresden Institute limits them to basketry and rope-making because in these two crafts blind people can succeed without any help from the sighted. They have to learn both in order to specialize later in only one of them. The Dresden Institute believes that its trained pupils should return to life in the community. Reinhard gave the following reasons for this conviction: (1) There will never be enough adult homes to accommodate all the blind; (2) The blind person has the same urge for freedom as the seeing; (3) The blind do not like to live in homes for the blind. The fact is that the ability to live independently and productively after school is the only real proof of the success of the schools. Reinhard recommended a fund for graduates from which they can, upon graduation, be equipped with clothing, tools, and initial working material. He also believed that only a thorough follow-up by the school in establishing and maintaining the graduate in public life will safeguard his future economic success. This should include the granting of low interest loans and the continued supply of material, bought by the school at wholesale low cost and sold to former pupils at cost.

Other trades discussed were: brushmaking, turnery, shoe-repair and shoe-

Workshop instruction

Preparations for integration into community

Trades

making, mattress and bedding manufacturing (about 100 persons were employed in this work at Edinburgh), piano-tuning and repairing.

Some of the discussions on trades went into great detail which riled Wilhartitz who commented thus: "I expected the Congress to concern itself with matters of principle. Whether a blind person can mend old shoes or produce new ones is a minor issue. I propose that we take an immediate vote on the theses presented by Mr. Reinhard which contain only constructive propositions in the interest of the blind" (Report, p. 81). The Congress then voted unanimously for Reinhard's propositions and voted in particular against establishment of "homes for the blind," though Moldenhawer dissented insofar as homes for the female blind are concerned. They also voted unanimously in favor of the following resolution: "At the time of and after the release of a blind person from the institution, he must be morally and materially assisted by it, if he is in need and worthy of such support. For this purpose every institution must establish a special fund" (Report, p. 83).

□ Finally there was music. Mathias Pablasek talked about this. In the first part of his paper he aired the opinion, expressed in a recent issue of a special education journal (*Der Heilpädagog*, 1871, No. 7), that only people who have all their senses and can draw upon the wealth of impressions related by them, can become great composers or reproducing artists. "The greater the area of human experiences and the accumulated treasure of beauty, the more means are at the artist's disposal. A blind person will never be able to achieve real harmonious balance if art is indeed the mirror of the human soul" (Report, p. 48).

Pablasek believed that these thoughts cannot be unconditionally applied to the blind because only the smallest group among them is congenitally blind and in poetry (Homer, Ossian, Milton) as well as in music (Therese von Paradis, Dulon, Labor, Lackner) some blind people have excelled. He conceded, however, that the congenitally blind person and one blinded early in life "suffers without doubt a loss of material for his musical creations. The greater sharpness of the other senses, the livelier phantasy, the more concentrated thinking and judgement as well as his enormous memory make up in part for the loss and enable him to climb to varying heights of art according to his native and cultivated gift in creating or reproducing poetic tone forms" (Report, p. 49).

Pablasek then proceeded to show from reports of various schools for the blind that they assign to music different values within the sequence of subjects taught and also vary in the kinds of instruments taught. Singing is cultivated by all, but some limit their pupils to "non-carriable" instruments and exclude such others as the violin, clarinet, and flute because they can be used by beggars.

It is interesting for the American reader that he quoted Wait of the New York Institution among those who opposed violin, flute or other orchestra instruments: "In 99 out of 100 cases this (the teaching of such instruments) means nothing but to send blind fiddlers into the world. We in New York know what this means: we see them almost regularly standing at the lampposts in the streets" (Report, p. 54). On the other hand, Knapp, superintendent of the Iowa Institution is quoted from the 1871 Conference of Teachers of the Blind in

Music Instruction

"Carriable" vs. "non-carriable" instruments

Why the controversy?

Indianapolis, p. 76), "A person who goes out to the streetcorner and stands there and fiddles is not the worst that can happen. Let's assume this person had not learned to play the violin, he would have gone there nevertheless and would probably have done something worse instead of playing the violin. . . . It is not the violin that draws him there. Give him something that relieves him of his distress and uplifts him" (Report, p. 55).

Reinhard was the spokesman for those who opposed the teaching of "carriable" instruments, while Pablasek, Moldenhawer, Wilhartitz, and the well-known blind court organist Josef Labor of Vienna favored the teaching of all instruments. After a lively discussion the Congress voted unanimously that music be a main subject in schools for the blind and that the teaching of it should not be limited to singing. An overwhelming majority refused to limit music instruction to singing, piano, and organ and voted that other instruments be included.

□ On the last two days of the Congress various resolutions that were submitted by the participants were debated and voted on. Among them was one stressing the need to establish libraries for the blind. It was recommended that all of the institutions for the blind in any nation combine to have desirable works published. Another resolution expressed the wish that a psychology and pathology of the blind be written but provided no means toward this end. The Congress also passed resolutions recommending that schools for the blind be established in the Orient. The latter were directed particularly to the Turkish Sultan, the Khedive of Egypt, and the Shah of Persia. Finally, a permanent Committee was elected and the usual thanks expressed to all those who made the Congress a success.

□ Biographies of three deaf-blind persons were submitted to the Congress and are included in the Report: Magnus Olsson, a Swedish boy who became deaf-blind at the age of seven (his achievements are related in considerable detail); Martin de Martin y Ruiz, a Spanish boy who was deaf from birth and became blind when four years old; and August Rudolf Miersch, who became blind in his fifth year and deaf at about ten years of age. Olsson was admitted when he was 15 years old to the Institute for the Blind and Deaf in Stockholm, Ruiz was attending the Institute for the Blind and Deaf in Madrid, and Miersch the Institute for the Blind in Dresden. Wilhartitz called the attention of the Congress to the deaf-blind Laura Bridgman in the United States whose biography and methods of education were published in the reports of the Institution for the Blind in Boston and in the press. Though the four deaf-blind persons were shown to be educable, no interest in establishing special educational facilities for them was voiced—the time for this was not yet at hand.

□ Throughout the Congress there was much talk about the importance of religious upbringing for the blind child and about the need for religion among the adult blind; about charity and its importance in the after-care of the blind; about moral and immoral conduct of the blind (of which beggary was the incarnation); about gratitude and ingratitude on the part of those confined to homes. By implication, vested interests were also discussed, illustrated by the following true and with some variation still applicable story. A private school

Resolutions Submitted to Congress

The Deaf-Blind

Religion and the Blind

was about to be taken over by the State government, a most desirable step. But its board of trustees protested strenuously against it. When a board member was asked why this incomprehensible stand, he said: "But, my dear friend, you do not want us to be deprived of the jubilee anniversary celebration which is due to be held next year?" (Report, p. 45).

□ It was mentioned at the beginning that the World Exposition 1873 in Vienna was one of the reasons why the Congress was held there. Many institutions and individuals concerned with work for the blind submitted objects for the exposition and a considerable number were awarded prizes by the jury.

Besides Austria-Hungary, Germany, France, Belgium, Great Britain, Italy, Sweden, Norway, Denmark, Spain, Russia, and Egypt, the following institutions and individuals from the United States took part: Institution for the Blind, Boston; American Printing House for the Blind, Louisville; and William B. Wait of New York. Howe, director of the Institution for the Blind in Boston "who has in a notable way enriched the literature of the pedagogy of the blind and the means of teaching the blind for a long time and already has received a silver medal from the jury of the Paris World Exposition in 1867," submitted six volumes newly printed by the Boston Institution and single pages of samples of his Boston relief print; he received the Medal for Progress. The American Printing House for the Blind submitted an apparatus for doing arithmetic (by H. Reffelt), tables for learning multiplications, and 12 sample volumes of relief print. It received the Medal of Merit. Wait exhibited his new system of print (New York Point) and also received the Medal of Merit.

The Medal of Progress was awarded to Armitage whose British and Foreign Blind Association had submitted apparatus to write and print Braille's and Wait's dot print and samples produced with them as well as relief maps of England and Wales. Many others also received medals for their achievements connected with work for the blind.

There were social activities, the most illustrious a banquet at a renowned Viennese social hall to which Baron Konigswarter had invited all Congress participants. Visits to places of interest for those teaching the blind, particularly the new Hohe Warte Institute, were of course arranged and all members of the Congress received a volume describing the latter and containing a number of other contributions.

□ This in a nut shell is the story of the first European Congress of Teachers of the Blind. Its topics and discussions show that it was not concerned with the education of blind children only but extended its interest into the broader field of work with the adult blind. The Congress of 1873 was followed regularly by Congresses in various cities in Germany and by conferences in Paris, Amsterdam, Brussels, Naples, Cairo, and London. Invitations to the German Congresses "were sent to almost all European and American institutions for the blind and the regular representation at these Congresses of not a few institutions outside Germany gave them a certain justification to be considered international (Mell, 1900, pp. 94-95). In addition Germany became the center where much of the research dealing with blindness and its effects was pursued and pub-

World Exhibition

Social and other activities

Other Congresses Followed

lished, at least until 1933 when the United States came into the foreground. The German Congresses and their printed reports well reflect this fact.

The first *really* international congress was held in 1931 in New York, the World Conference on Work for the Blind. Delegates from 32 countries met from April 13 to 30. A ten-day tour to visit American places of general and special interest was included. This meeting, well-prepared and successful as it was, was not destined to be regularly followed by others. Only after the Second World War did an era dawn that held promise for continuing international cooperation in education and work with the blind. The first International Conference of Workers for the Blind was held at Merton College, Oxford University, in 1949 and the International Conference of Educators of Blind Youth at Bussum, the Netherlands, in 1952. Since then both Conferences were followed quinquennially by others. For all of this, the Vienna Congress of 1873 was the historical starting point.

Mell, Alexander. *Encyklopädisches handbuch des blindenwesens*. Wien und Leipzig: Pichler Verlag, 1900.

Report of the first european congress of teachers of the blind (Der Erste Europäische Blindenlehrer-Congress in Wien, Protokollarischer Bericht). Wien: Standing Congress Committee, 1873.

References

New Device Assists in Machine Operation

The Swedish magazine *Affarsekonomi* reports that a new device called a "tactile reader" has recently been developed by Telub AB, Vaxjo, southern Sweden. The tactile reader will enable blind persons to operate various types of electronic machines, such as calculators, measuring instruments, etc. When the device is connected to the machine in question the digits on the machine are translated into braille on a special panel, giving the blind persons control over the machine. □ Originally conceived by a Telub employee who is himself blind, the tactile reader would permit blind persons to carry out tasks of key importance in companies and organizations where electronic machines are in use, according to *Affarsekonomi*. The Swedish Board for Technical Development (STU) has provided financial assistance for the development of the device, which is still in the prototype stage. Testing is being carried out at various schools for the blind to determine which adjustments need to be made, and series production is expected to begin late in the year.

Conceived by Blind Employee

The Closed-Circuit Television Reading System: Fact or Fiasco?

ABSTRACT: After simply describing the basic principles of the CCTV and its uses in low vision rehabilitation, the author provides a general critique of the system as it is currently being marketed. The unsolved problems include poorly designed and awkwardly placed controls, insufficient stability and flatness of the material to be viewed, the requirement for a high degree of manual dexterity, insufficient servicing capability, lack of provision for adequate training of users, residual or latent image, and high cost. It is concluded that the present generation of devices is insufficient for meeting the needs of low vision patients and that those manufacturers who best solve these problems will be the ones who will survive.

The closed-circuit television (CCTV) as an aid in low vision rehabilitation has existed in theory for some time, but it has only been in the last few years that it has materialized in any semblance of a practical form. How "practical" this form is will be my primary interest in this paper. From an initial one or two companies marketing CCTV's for low vision use, the number has grown to an unrealistic number of seven. It will not be my purpose to evaluate the individual CCTV's at this time, but to try and convey what is plaguing them, based on my own assessment as a specialist in the area of low vision and the assessment of my patients who are visually handicapped. In light of the competition among the many companies to reach this select population of low vision patients, it is not hard to understand the approach adopted in marketing the CCTV, an approach which could lead to the purchase of these devices by individuals who have not been properly evaluated and trained in their use. Considering the cost of the device, which averages \$1,545.00 (based on the cost of five readily available camera-monitor systems) and the susceptibility of the population, I feel that a more cautious approach should be sought than simply advertising the product directly to the potential low vision purchaser.

□ The CCTV is being aimed at essentially two areas, industry and low vision rehabilitation. In industry the uses of the CCTV system are for inspection and security. This paper will not be concerned with this aspect of utilization, but will be confined to the second category, low vision rehabilitation. The CCTV is here employed to provide: 1) a degree of magnification unobtainable through the low vision series of microscopes, magnifiers, or a projection magnifier; 2) a means by which speed of reading can be increased; 3) an increase in the duration of reading time; 4) a method allowing an increase in contrast by electronic reversal from black-on-white to white-on-black; and 5) a means of writing and performing tasks under higher magnification.

□ Before beginning, I feel a simple explanation of the device with which we are concerned is in order. The closed-circuit television, or CCTV, is a mutation of that common household instrument that brings the football game into our

GERALD R. FRIEDMAN, O.D.

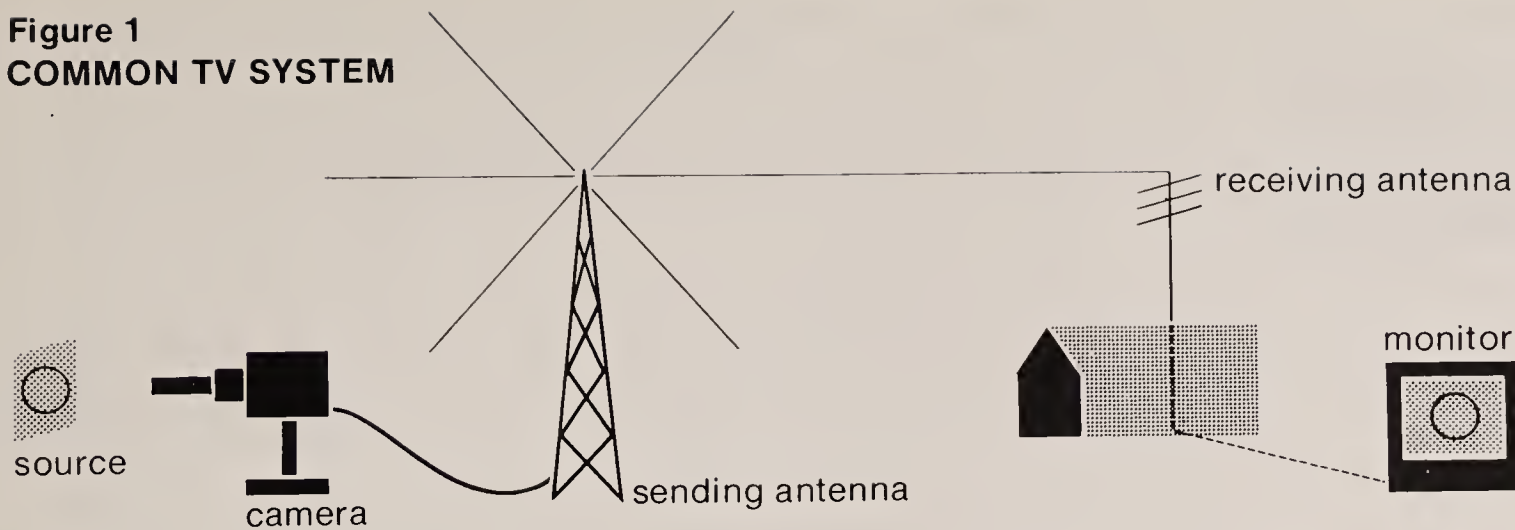
Dr. Friedman, an optometrist whose private practice is devoted to low vision, is a member of the staff of the Low Vision Clinic, Boston University Medical Center.

Purpose

Low Vision Rehabilitation

Television and the CCTV

Figure 1
COMMON TV SYSTEM

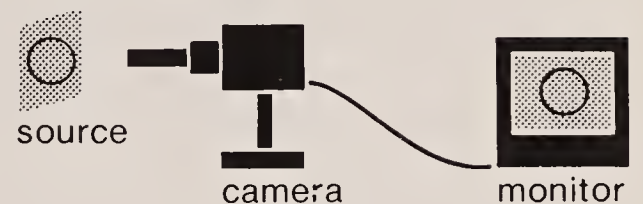


homes on Sunday. It is indeed a monument to man's ingenuity that the same device that brings those obnoxious commercials into our homes can also allow those with a severe visual impairment to read and write. The system with which we are all familiar, television (Fig. 1), consists of a program source in a studio; for our example it will consist simply of some writing, but it could be a movie or football game. The TV camera in the studio converts this source into a signal which is sent out from the station. This signal is received at your home and reconverted into the original picture by your TV set or monitor. The CCTV system takes this same source, i.e., the writing (Fig. 2), which now is in your home instead of a studio, and converts it into a signal; now, however, this signal is sent directly to a monitor positioned adjacent to it. In essence, it bypasses the steps of sending and receiving a signal over a great distance by simply placing the whole TV station in your home. (For a more technical explanation of the CCTV, the reader is referred to any good text on the fundamentals of television.)

With the CCTV system you have the same controls as your TV set at home, but by placing the camera in your home you also gain the control of 1) the program source, i.e., books, newspapers, etc.; 2) figure/ground control, i.e., you can select the standard black letters on a white background, as a book would appear, or you can reverse it to have white letters on a black background; and 3) the control of the magnification of the subject being viewed. All the currently available CCTV's operate essentially in a similar manner and all offer these features; the degree of perfection achieved, however, differs widely among the different companies. The various instruments differ in size, weight, and physical appearance; however, for the sake of simplicity, they can be categorized into two models: 1) those consisting of a monitor and separate camera, and 2) those with the monitor and camera in the same unit.

□ One of the blatant abuses with which we are confronted in appraising the CCTV as used in low vision is the element I shall call "human engineering." In designing a machine or instrument of any kind, certain means of controlling it must be incorporated. Let us look at an elementary example, the device which controls the on-off function of the instrument. First, in order for the instrument to be functional, it is axiomatic that this on-off control be present. The actual physical form of this control—its shape, size, texture, and color—re-

Figure 2
CCTV SYSTEM



Human Engineering

quires some additional thought. A source of information in considering this element which apparently has been overlooked is the potential user, the low vision patient. Such an individual, if he had been asked, would hardly condone such existing abuses as small knobs, dark colored knobs on a dark background, miniscule calibration and identification marks, and the use of "miniswitches." Even the similarity in shape of controls used, especially on the monitors, must be criticized. The thought behind this symmetry and shape standardization could only have been inspired by aesthetics. When it comes to aesthetics and the CCTV's, the role played by aesthetics should definitely be a subordinate one. A more practical solution to the control problem would be to have a different shape for each of the knobs located on the monitor. For example, the control for contrast might be square, while the brightness control might be triangular or round (Fig. 3). In accordance with the concepts of contrast and figure/ground, I will go one step further and suggest that the controls be white and be placed on a black background.

Control knobs

In considering the placement of the controls, it requires only a quick glance to make one ask what underlying thought processes govern those who design these layouts. Are we actually confronting a manifestation of the proverbial "engineer's nightmare"? One of the systems available has the on-off power control mounted at the base of the column which supports the camera, requiring the user to reach over and around the X-Y table (the moveable platform upon which the material to be viewed is placed), and under or around the protruding lens of the camera in order to use it. Controls on the monitors are all too close to each other, which, together with the similarity of shape, leads to confusion and improper choice when a specific control is desired. One of the units actually has the following instructions for adjustment of the monitor: "When narrow bands occur at the top or bottom of the screen, use narrow-blade screwdriver and adjust vertical height control through hole in front of monitor." The hole being referred to measures only five millimeters in diameter, (in our model at the clinic, this hole was not even drilled) an interesting fact considering that the person who has bought the device is supposed to need the magnification capabilities of a CCTV to read ordinary print.

Placement of controls

Some insight into the problem of control design and placement can be gleaned from reference to the elaborate research concerning the design of aircraft instrument panels. The emphasis here is on logic and function; I think the CCTV industry could benefit from some interest along these same lines.

□ A critical problem which was not anticipated or was just ignored by the manufacturers is the one associated with stabilization of the material to be viewed on the X-Y table. A little thought along these lines reveals some obvious omissions. To be used with any degree of success, the CCTV must have the material to be viewed securely fastened to the moveable X-Y table beneath the camera lens; little in the way of fastening devices is furnished or even suggested by most of the manufacturers. The fact that the X-Y table is moved in two directions in order to scan or read makes it imperative that the material placed on it move exactly with it.

Stabilizing Viewing Matter

Just as important, if not more so, is the requirement that the source placed under the camera be held as flat as possible. The sheet of plexiglass offered by

Depth of field problem

one manufacturer (at additional cost) is a poor solution at best, considering that plexiglass has insufficient weight and is not resistant to scratching. This would not be considered a critical problem if the lens used by the camera could adequately compensate for the depth of field requirement. This is, however, not the case with the present generation of CCTV's. For our purposes, depth of field refers to how far two points can be from each other and still be brought simultaneously into clear focus by the lens. In other words, if a point closest to the lens is brought into sharp focus, depth of field will determine how far another point can be placed from the lens and still be in focus. An example would be a book placed on the X-Y table and not held flat. The book would form a curved surface, parts of which would be closer to the lens than others. If there is inadequate depth of field for the lens to compensate for the discrepancy, therefore, focusing on a high part of the page means that as the X-Y table is moved and the lower areas passed beneath the lens, they would be out of focus. If we focus on the low areas, the higher areas will be out of focus.

By closing down the aperture stop on the lens we can increase the depth of field, since an inverse relationship exists between aperture size and depth of field. Unfortunately, the increase in depth of field realized by this approach (with the type of lens used on the current CCTV's) is inadequate for the purpose. In addition, closing down the aperture can and does adversely affect the illumination. There is a direct relationship between the aperture and the illumination, i.e., the smaller the aperture, the less the amount of light that passes through to the camera.

The assumption that everything placed on the X-Y table will be heavy enough by itself to remain flat and stationary is, I feel, begging the issue. It becomes frighteningly apparent that without a simple device for securing material to the X-Y table, all the electronics become useless, all the ingenious designs become useless, and the \$1,545-investment has been wasted.

□ Even if one is not familiar with the CCTV's, a few minutes of use will point out one of the requirements for users of the instruments now available—an adequate degree of manual dexterity. Without this dexterity reading becomes a nightmare of overshoots, undershoots, and lost places. Without control over the X-Y table, it is not beyond the realm of possibility that a state of nausea will be induced in the operator. It is ironic that the dexterity consideration is the factor that places this type of reading system beyond the reach of a whole segment of the population which could benefit from it, namely the elderly and those with tremors of the hands or arms. This problem is not insurmountable, however, as one solution could be appreciated in the form of a camera mounted in such a way as to electronically pan or sweep across the material to be read. A more realistic approach might be a modification of the technique employed in the P. Davis version of the CCTV (primarily experimental and not readily available). This system uses a combination of an electronically moveable X-Y table and a mirror system to scan a reading source in preset, variable increments controlled by push buttons. It is not beyond present technology to develop a modified version of the mirror to fit on the lens of the camera for those with a dexterity problem.

□ With any type of instrument the question which sooner or later arises is

Figure 3
MONITOR CONTROL DESIGN



No easy solution

Manual Dexterity Requirement

Maintenance

"maintenance and down time." This becomes more acute when we look at it closer. To the person purchasing one of the CCTV's, one of the first questions asked is: "What do I do when something goes wrong with it?" The problem is not the same as that which arises when the family TV fails to function. When that device fails, all that is lost is entertainment, for the more vital areas such as news can be acquired by appropriate substitution of other media. The CCTV, to the low vision patient, is not just a source of entertainment and a substitution is not readily available. In most cases it constitutes his only means of remaining in contact with the printed world. The purchaser becomes dependent on his CCTV; when he asks what happens when something goes wrong, he deserves an answer. I do not buy the sophomoric answer, "Any TV serviceman can fix it!" Unfortunately, a great many so-called TV servicemen are nothing more than tube mechanics. Although the monitor of the CCTV system is basically the same as its common household relative, there remains the other element, the TV camera.

Taking into consideration the visual handicap of the user, I feel it is going a bit far to expect him to search the Yellow Pages for a service facility or even to expect him to know innately of a reputable source of service for CCTV systems. The responsibility for maintenance must be assumed by the company that is marketing this device as a low vision aid. If the company has no service facilities available in the purchaser's area, it should at least provide the name of one or more reputable sources which are familiar with the device and qualified to render any needed services. I can readily sympathize with the concern over maintenance and can cite the following to support my stand: the Low Vision Clinic in Boston has numerous CCTV systems available for patients to try. One of these CCTV's (a readily available model) failed to function properly on the first day it was installed. The company representative was notified and he proceeded to analyze the problem. Three weeks later the system still was not functioning. Must the potential purchaser be subjected to this also? If the units are not reliable enough to function when new, what can be expected after a year or two? An interesting note here is the fact that the Massachusetts Commission for the Blind has stopped purchasing CCTV's due to mechanical complications encountered with those previously purchased for its clients.

□ The theory of the CCTV as a reading and writing device is certainly realistic; however, it is far from simple to achieve the capabilities for use in the form needed to realize any benefit. Anyone doubting the problems that exist in the use of the device should certainly try one. The problems are again not insurmountable; however, they must be realized before they can be dealt with. An instruction manual accompanying the CCTV is no substitute for adequately training the purchaser in its use. A simple oversight like forgetting to remove the protective lens cap from the camera renders the whole system inoperable. The purchaser should be given a simplified check list for operation of the instrument, as well as one for trouble-shooting, and then given training for using the instrument.

Included with each CCTV should be an adequate training session conducted by people familiar with the device, perhaps even enlisting those visually handi-

Availability of servicing

Training Is Essential

capped persons who have acquired proficiency in its use. At least one agency has recognized the importance of training: the Veterans Administration maintains a CCTV training facility at its West Haven, Connecticut, hospital for those who acquire such a system through the V.A.

□ A persistent problem, and one which is partially resolved in only a few of the available units, is the residual or latent image encountered when reading. When the X-Y table is moved in either direction, one encounters a lag in disappearance of the image from the monitor. This phenomenon produces a blur as the table is moved. If the CCTV is to be used efficiently as a reading aid this problem must be resolved; it is definitely a limiting factor in the ultimate reading rate which can be achieved.

Although initial reaction is to balk at the price, price is a relative thing and must be taken in context. For that population for which it is *applicable*, the cost of a CCTV is not prohibitive, and may even be the most economical solution to rehabilitation. I must emphasize the word *applicable*. I do not include in this group those who would use the CCTV for reading an occasional letter, but those for whom it would provide a connection with the written world or a means of obtaining or maintaining employment. The price becomes a serious consideration only when the device is purchased and not used, either because of maintenance problems or the fact that the client was improperly screened in the first place. The subject of screening is itself an extensive area which must be dealt with properly; suffice it to say that the screening should be done by those who are familiar with both the CCTV reading system and the problems of the low vision patient.

□ The simplest industry rebuttal to these problems could be that their solution would result in prohibitive production costs. This may well prove to be the case, but at the risk of sounding prophetic, I think that the companies that emerge as survivors in the CCTV field will have most of the corrections incorporated into their designs. Another obvious possibility remains—the disappearance of the CCTV as an instrument of vision rehabilitation. This latter course would be truly unfortunate, for there is a place in vision rehabilitation for the CCTV, in theory at least, even if it has not yet been practically realized.

Less time and money should be spent on aesthetics and more on practicality. It appears to be an exercise in futility to produce units in beautiful wood-grain finish (even if it is simulated) when those for whom they are intended do not possess the vision to appreciate it. This factor becomes even more relevant when looked at from the standpoint of a competitive market. Money spent for such things must come from compromises made in other areas, like using a cheaper camera or other essential components of lesser quality.

At least part of the CCTV disappointment appears to emanate from the fact that the design was formulated by those who are sighted without consultation with the partially sighted population for which the device was intended. Hopefully this oversight will be overcome, thus enabling the third generation CCTV's to possess something their predecessors lacked—a greater utilization by a greater number of the population who could use them.

Residual Image Problem

The cost of CCTV systems

Conclusions

Consulting potential users

A Statement of the Needs of Blind and Visually Impaired Individuals

ABSTRACT: After defining blindness and visual impairment, and noting that either may be present congenitally or occur later in life (adventitious), the authors identify three interdependent levels which descriptions of blind and visually impaired persons should include—the physiological, the personal, and the social. Needs shared by all such individuals include assistance in mobility, communication, information collection, physical expression, and psychological functioning. This is followed by detailed discussions of the needs of congenitally blind, adventitiously blind, congenitally visually impaired, and adventitiously visually impaired persons on each of the three levels of analysis at various ages throughout life or at various periods following the onset of the handicap.

The following statement about the needs of blind and visually impaired individuals is presented in the hope that it will serve as a guideline to professional workers in the field of blindness and rehabilitation, as well as serving as a compendium of current rehabilitation thinking concerning the disabled blind or visually impaired individual.

□ For the purpose of this statement, the following definitions have been established: *Blind*—persons who are unable to receive visual stimulation of any type; *Visually impaired*—persons with serious visual difficulties who have some type of visual experience no matter how simple or primitive; *Adventitiously blind or visually impaired*—persons with a visual handicap whose visual loss was not present at birth and who are assumed to have had a history, no matter how short, of normal visual experience; *Congenitally blind or visually impaired*—persons whose state of blindness or visual impairment existed at birth and who are assumed not to have had a period of normal visual experience. (It is recognized that these rather absolute and arbitrary definitions will leave something to be desired among some leaders in the field. Until there is more unanimity of thinking and some validation of other definitions, however, perhaps these can serve as working positions tolerable to all.)

In developing a statement about the needs of blind and visually impaired individuals, the authors were acutely aware of the difficulties of the task. They realized that the needs of blind and visually impaired people are often the accentuated needs common to all mankind, as well as needs which are mutually shared by all seriously disabled individuals. They were also aware that blindness is often linked with other disabling conditions, and that in many circumstances the blindness or visual impairment of the individual may play only a minor role in his total pattern of disability. They were aware further that the needs of blind and visually impaired people are caused not only by their condition but also by the stereotyped and often emotional manner in which society attempts to adjust to blindness.

GORDON B. CONNOR, Ed.D.
JOHN F. MULDOON, Ph.D.

Dr. Connor is administrator of Craig House-Technoma Workshop, Pittsburgh;

Dr. Muldoon is executive director of the Volusia County Community Mental Health Center, Daytona Beach, Florida. Both have worked in the field of services for blind persons.

Definitions

Needs—common and unique

Although the statement is concerned with specifying the needs of individuals, it was recognized that much of the disability of blind and visually impaired people is occasioned by restrictions, overprotection, rejection, unrealistic expectations, and the ignorance of society. Thus, the blind or visually impaired individual is further handicapped by being excused from the usual developmental, educational, and vocational experiences and often being permitted to maintain unpleasant habits, poor posture, and a debilitating dependence. The fear occasioned in others by blindness is associated not only with the rejection of blind persons, but also often with a confining benevolence which cares for but also segregates them from sighted society.

While emphasizing the needs of the individual, it is hoped that the assistance given to him will be paralleled by an intense program of public education emphasizing the actual performance of blind persons and maintaining a meticulous and scrupulous accuracy in describing the consequences of blindness, so that lingering, unconscious superstitions with respect to blindness may eventually be dispelled.

□ The way in which the needs of blind and visually impaired people are described depends to a great extent upon how blindness is defined. Because blindness is a complex experience with ramifications on the organic and psychosocial levels of organization of the individual, it is valuable for the purposes of analysis to define blindness on three levels of description: the physiological, the personal, and the social. These are intended to represent steps in structure from the description of blindness in concrete physiochemical and anatomical terms to a description of blindness in terms of its social patterns and structures. Each descriptive level serves as a basis for defining the needs of the blind person at that particular level. *It is assumed that, in general, blindness is a dynamic process, and consequently, the needs of the individual blind person on each of the three levels of description change as a function of time.* These changes will be occasioned by changes in the physiochemical as well as the personal and social structure of the blind person. For example, the physiological needs of the blind-diabetic person at four years of age will be considerably different from the organic and physiological needs of the blind-diabetic person at age 55. In a similar manner, the social and personal needs of a blind person at age four will be different from the social and personal needs of the blind person at age 16 and at age 35. *Consequently, in defining the needs of the blind person, one must take into consideration the interaction of the three levels of needs of the person as a function of time.*

The three levels of description of blindness are as follows:

- 1. *The Physiological Level.* Blindness is most frequently a result of important chemical and physiological changes in the total organism. Consequently, an appropriate description of blindness includes the detailed summary of the entire physiological status of the individual with special emphasis on the implications of that status to the future functioning of his visual mechanism.
- 2. *The Personal Level.* Blindness is a personal experience and its implications to the personal adjustment of the individual are very great. Not only is the person handicapped in his mobility, but his entire sense of well-being is

Describing Visual Impairment

Three levels of description

Physiological

Personal

threatened. Consequently, an adequate definition of blindness involves a thorough understanding of the meaning of blindness to a person and its implications for his personal organization. The particular psychological trauma that blindness produces will depend a great deal on the individual's age at onset of blindness and the quality and characteristics of his psychological makeup. These factors have important implications for appropriate medical management of the underlying cause of blindness, as well as for the person's social and vocational adjustment.

☐ 3. *The Social Level.* Blindness is a social phenomenon and when it occurs in a social group it alters the social structure. Thus, when blindness occurs in a family, the life of the family is changed and in all probability cannot return to the same structure which characterized it prior to the onset of blindness. The new structure can be strong and satisfying to all members of the family, but it will be a different structure than originally existed. The specific adaptations that any social unit makes in adapting to blindness has implications for the adaptation of the individual at the personal and physiological levels.

Social

The three levels of description of blindness are interdependent, and changes at one level have important implications at the other levels. The blind individual has needs at all three levels of description, and it is important that some integrative plan to provide assistance at all levels over a continuing period of time be established.

Levels are interdependent

Before describing the unique needs of blind and visually impaired persons, we will review the five major areas of assistance which are shared by all blind and visually impaired people: mobility, communication, information collection, physical expression, and psychological functioning.

Areas of need

☐ All blind and visually impaired persons need intensive training in mobility. The particular technique of mobility may not be of major importance and can be determined by the interests of the individual, the availability of specific types of training, and perhaps the relationship of the type of mobility to the needs of the individual. Mobility is an important adjunct in meeting important problems of blind and visually impaired persons, such as employment, developing a sense of social adequacy, and personal adjustment. The emphasis placed on mobility will be determined by the individual's resources and projected plans.

Mobility

The individual's competence in mobility will be enhanced by intensive training in the use of the remaining senses not only as information recorders but as assets in orientation. The proper use of the senses will enable the blind individual to maintain an awareness of his surroundings, his relationship to them, and adequate information about events in the environment that are important to him. Obviously, a competence in maintaining a proper spatial orientation to persons, places, and things will strengthen the individual's confidence in himself and the ease with which he interacts with persons, places, and things. This, in turn, is an important asset to psychic functioning, being a defense against the sense of being alone and lost.

Sensory training

☐ All persons with limited or no vision should be given the opportunity to learn braille so that they can read and keep notes as well as communicate with other blind persons. The intensity of the training program in braille should be

Communication

determined by the talents of the individual as well as the value of braille to him in his eventual adjustment to blindness. Thus, the blind child should receive intensive training in braille, while a person who loses his sight at age 60 might be taught braille as a technique to enable him to live more comfortably, to identify important objects, and for record keeping. All visually impaired and blind persons should be taught handwriting to enable them to correspond comfortably with sighted persons. Again, this skill need not be so much emphasized in the rehabilitation of older blind persons.

□ All visually impaired and blind persons suffer a great loss of their ability to gain information about their environment when they lose their sight. Consequently, all need help in developing compensatory techniques of accumulating information about the physical and social environment. Mobility is an important adjunct to information collection and the person should not only be taught mobility techniques but also put under pressure to use them in order to maintain an interest in the surrounding world. Special training in sensitizing other sense modalities as instruments of information gathering and analyzing is helpful in replacing the technique lost through blindness. The blind person also needs help in developing feedback procedures which enable him continuously to check and evaluate data gathered through the remaining senses.

□ Although little attention is usually given to the need for physical expression, blind persons generally need much help in developing a correct and acceptable posture as well as in finding ways for suitable, enjoyable, and needed physical activity. The blind or visually impaired client needs help to avoid "blindisms." His good posture, manner, and carriage communicate confidence and a responsible interest in the world around him.

The opportunity for exercise is important at all periods in the life of an individual. In the early years, the opportunity for intensive physical expression is important for the proper maturation of the individual, for the pleasure of physical expression, and for the opportunity to interact with others in competitive and cooperative sports. Young people need specific help in finding suitable exercises and in developing or discovering games in which they can realistically compete with sighted as well as blind individuals.

There are many procedures and techniques which can be used to help the blind person develop mobility, communication skills, information collection techniques, and techniques of physical expression. In deciding which techniques are most valuable, consideration must be given to the total needs of the individual, particularly the need to participate as an independent and responsible person in the sighted world. Consequently, the assistance that is given to a blind person in developing skills should take into consideration the fact that these skills have to be practiced in a sighted world and should all add to the person's ability to move and interact comfortably with others.

□ Proper psychological development and functioning of an individual assumes the presence of sensory mechanisms for the collection and analysis of information about the physical and social environments. It also requires the availability of other individuals with whom the blind person can interact with some comfort and without the presence of continuous paralyzing anxiety, either in him-

Information Collection

Physical Expression

Living in the sighted world

Psychological Functioning

Levels of Analysis	Years			
	0-1	1-4	4-7	7-12
<i>Physiological</i>	General medical evaluation, treatment, and long-term management. Stimulation, muscular expression.	Medical exam and medical management. Many opportunities for muscular activities and exploration.	Medical exam and management. Higher-level forms of physical expression.	Medical exam and management. Higher-level forms of physical expression.
<i>Personal</i>	Interaction with adults and children. Stimulation of all modalities.	Continued stimulation and encouragement of interest in external world. Special attention to techniques of getting and testing information. Travel training. Activities of daily living.	Emphasis on interaction with children and adults. Continued training in mobility. Activities of daily living.	Begin braille handwriting as customary educational experiences. Begin sex education. Activities of daily living. Typewriting.
<i>Social</i>				
a. Interpersonal Relationships	Appropriate interaction with siblings and other children and adults.	Planned as well as spontaneous association with children and adults.	Skill in games and sports. Enforced as well as spontaneous associations with blind and sighted persons.	Skill in games and sports. Enforced as well as spontaneous associations with blind and sighted persons.
b. Vocational Preparation	Encourage curiosity; provide experience which will reward curiosity.	Experience with many types of objects and activities.	Continued varied experience with some attention to specialized interests.	Opportunity to learn about types of work.
c. Family Relationships	Accurate diagnosis and prognosis to family. Management of family needs as well as child's needs.	Guidance to family as they arrange adequate program for child.	Guidance to family as they arrange adequate program for child.	Guidance to family as they arrange adequate program for child.

self or his companions. The absence of stimulation and information and the presence of a continuous high anxiety level either in the individual or his companions will prevent the development of adequate psychic structures in the congenitally blind (Klein, 1962) or result in a dependent, withdrawn, self-centered, and suspicious adjustment in the adventitiously blind individual (Jacobson, 1959). It is extremely important that blind and visually impaired persons be involved in experiences which make it necessary to collect, analyze, and respond to sensory data from the physical and social environments.

The next section of this paper is concerned with adequately defining the needs of blind persons at the three levels of blindness over the life span of the individual. Because the needs of congenitally and adventitiously blind persons are different, and because the presence of some vision modifies the needs of individuals, the analysis of the needs of blind persons will be considered for four different groups: 1) congenitally totally blind persons; 2) congenitally visually impaired persons; 3) adventitiously totally blind persons; and 4) adventitiously visually impaired persons.

□ All of the general needs mentioned above are present in congenitally totally blind individuals, but the pattern and intensity of the help needed to meet them is unique. First of all, the person who is congenitally totally blind needs intense assistance from the moment that his condition is diagnosed. This assistance extends not only to himself but to his entire social and physical environment. Stimulation and social interaction are extremely important to the proper development of not only psychological but also physiological mechanisms of

Congenitally Blind Persons

12-15	15-21	21-35	35-55	55+
Medical exam and management. Higher-level forms of physical expression.	Medical exam and management. Higher-level forms of physical expression.	Medical exam and management. Higher-level forms of physical expression.	Medical exam and management. Higher-level forms of physical expression.	Medical exam and management. Higher-level forms of physical expression.
Continued emphasis on education and interaction with others. Activities of daily living.	Participation in adolescent activities. Counseling concerning adult goals.	Personal counseling for any problem, if necessary.	Personal counseling for any problem, if necessary.	Personal counseling for any problem, if necessary.
Same but with addition of dancing classes and lessons in personal hygiene.	Opportunity for and enforced participation in adolescent activities.	Personal counseling regarding development of rewarding recreational activities.	Continued counseling, if necessary.	Continued counseling, if necessary.
Specific education about training and job possibilities.	Vocational evaluation, training, placement.	Continued counseling and training if desired and desirable.	Continued counseling, if necessary.	Use of avocational interests as part of retirement planning.
Guidance to family as they arrange adequate program for child.	Guidance to family as they arrange adequate program for child.	Marriage counseling for spouse.	Counseling if needed.	Retirement counseling.

an individual (Bliss, 1962; Scott, 1963; Thompson & Schaefer, 1961). Attention must, therefore, be given to means of supplying to the blind baby compensatory types of stimulation to offset the loss of visual stimulation. Since the lack of stimulation can produce a serious, unyielding psychological disability (Klein, 1962), it is important that consideration be given to the needs of the blind baby for continuous stimulation after the fashion in which vision produces continuous stimulation for the newborn sighted child and leads to exploratory behavior and patterns of self-direction. This means involving the child in an atmosphere that produces stimulation, drawing the baby's attention and developing his curiosity. Exactly what is needed by a developing organism is not clearly understood, and consequently support should be given to research which attempts to understand the physiological and neurological development of organisms in the absence of the usual stimulation. The results of such studies on animals might give an insight into the needs of the congenitally blind child during the first months of life.

The goal of the first year of life should be to develop in the child a sense of pleasure in his curiosity and satisfaction in some control over his immediate environment. These experiences are important in order that the child may develop an active interest in successfully aggressive techniques of mastering his environment in a manner similar to that of the sighted child.

In Table 1 an attempt has been made to list the needs of the congenitally blind child on the three levels of organization over the entire period of his life. For purposes of emphasis and presentation, the social needs of the congenitally

TABLE I
Needs of Congenitally Blind and Visually Impaired Persons Over the Life Span of the Individual

Providing stimulation

Social needs

totally blind person are presented in three areas: interpersonal relationships, vocational preparation, and family relationships. In the category of family relationships, attention is given to the needs of the family members for their own well-being as well as for the well-being of the blind family member.

The critical time of assistance to the child is in the early months of life. If adequate assistance is given during this period, there is reason to hope that the child and his parents will become less and less dependent upon professional assistance and more confident in planning their own program and meeting their own needs. During the early years of life heavy emphasis is placed on techniques of mobility, the focus of which changes as a child advances from crawling to walking to running to traveling. Intensive training and assistance in the five areas of mobility, communication, information collection, physical expression, and psychic functioning during the first years of life should reduce the possibility that maladjustment and extreme dependence will develop.

The success of the adaptation of the blind individual and his family during the first years of life will determine the kind and intensity of training and assistance needed in later years. In general, special counseling and other types of assistance will be needed during the critical periods of life, such as the teens, the time of marriage, parenthood, and perhaps retirement.

Early in the child's life, attention should be given to vocational programming. He should be exposed to a wide variety of experiences from which he will be able to develop an adequate concept of the world of work. Hopefully, out of these experiences will develop the sense that work is an opportunity for self-expression, so that the young person will make a vocational choice on the basis of interest and abilities rather than on the basis of limited opportunities. Presuming that preparation for entrance into and maintenance in the world of work will pose many difficulties for the congenitally totally blind individual, continued assistance through vocational evaluation, training, and counseling should be readily available to him.

Adequate maturation and development of the congenitally totally blind child is impossible without the sensitive participation of his family in implementing the proper program for the newborn and developing child. In stressing the needs of the child, the needs of the other family members must not be overlooked. Intensive counseling is needed by the parents as soon as possible after diagnosis, its purpose being not only to inform the parents of the child's condition and its implications for his development, but also to help the parents understand their personal reaction to the birth of a disabled baby and to help them avoid becoming overprotective and embarrassed by the presence of the child in their family. Assuming that the majority of parents of congenitally blind children are well motivated and adequate, it is reasonable to hope that well counseled parents will be able to assume the major responsibility for the direction of the developmental program for their child, thus decreasing the need for intensive professional help later in the child's life.

□ The needs of the congenitally visually impaired individual are similar to those of the congenitally totally blind individual. Insofar as the child has usable sight, the general needs of all blind persons and the specific needs of the con-

Early months are critical

Later years

Vocational programming

The family

Congenitally Visually Impaired Persons

Levels of Analysis	0-3 Months	3-6 Months	6-24 Months	2 Years Plus
<i>Physiological</i>	Diagnosis, treatment	Plans for long-term medical management.	Review and continued medical management.	Review and continued medical management.
<i>Personal</i>	Medical counseling, personal counseling by trained child therapist regarding reaction to blindness.	Continued counseling. Training in mobility, orientation, communication and other skills for independent living. Emphasis on interaction with young people and adults.	Continued counseling concerning the dynamics of depression, regression and fears. Continued intensive training in skills, especially braille and mobility. Emphasis on education.	Continued emphasis on education and appropriate relations with young people and adults.
<i>Social</i> <i>a.</i> Interpersonal Relationships	Encourage social activities similar to pre-blindness pattern.	Planned as well as spontaneous association with young people and adults. Development of skills in games and sports.	Continued emphasis on social activities, games and sports. Dancing and other skills when appropriate.	Counseling concerning recreational activities.
<i>b.</i> Vocational Adjustment	Supportive counseling as client explores his reaction to blindness.	Insistence that client return to appropriate educational and vocational training. Vocational evaluation when appropriate.	Continued education and training with attention to special interests. Opportunity to learn about types of work.	Continued vocational counseling, if desired or desirable.
<i>c.</i> Family Relationships	Interpretation of client's condition; counseling regarding family's reaction to blindness.	Counseling concerning family adjustment and possible changes in family roles.	Continued counseling concerning family's adjustment to blindness.	If undesirable family relationships among family members continue, referral to family counseling service for assistance.

genitally totally blind person will have to be adapted to the congenitally visually impaired individual. Table 1 also serves as a summary of the general needs of the congenitally visually impaired person. However, it is possible that the very presence of some vision in the visually impaired individual may become the basis for further disability. The visually impaired individual, because of his slight vision, may reject the concept of "blindness" and attempt to adjust as a sighted person. Because he is unable to accept his visual impairment and cannot function as a sighted individual, he lives in a vacuum, rejecting the help available to the blind and visually impaired and unable to use the resources available to sighted individuals. Often, such an attitude is at least partially responsible for the inability and unwillingness of visually impaired individuals to participate in educational, vocational, and other programs.

The same difficulty in accepting the implications of "blindness" may also be present in the parents of a congenitally visually impaired child. Consequently, the maturation and development of the child may not proceed adequately unless counseling is provided the parents regarding the meaning of blindness to them and their attempt to adjust to this psychological trauma.

□ Of critical importance to the adventitiously totally blind person is an early and thorough evaluation of his functioning at the three levels of analysis: physiological, personal, and social. An adequate evaluation of the individual's assets and liabilities will make possible the development of sensitive and appropriate medical and social rehabilitation programs. He will probably need assistance in adapting to the psychological trauma of blindness before he can

TABLE II
Needs of Adventitiously Blind and Visually Impaired Young Persons, Ages 1 to 20 Years, Over Time Periods After the Onset of Blindness

The presence of some vision

Adventitiously Blind Persons

Levels of Analysis	0-3 Months	3-6 Months	6-24 Months	2 Years Plus
<i>Physiological</i>	Diagnosis, treatment	Plans for long-term medical management.	Review and continued medical management.	Review and continued medical management.
<i>Personal</i>	Medical counseling. Personal counseling concerning personal reactions to blindness.	Continued medical and personal counseling. Training in mobility, orientation, communication and other needed skills for independent living. Fitting and training in use of appropriate optical aids.	Continued counseling concerning the dynamics of depression, regression and fears. Help in understanding depression, regression and fears in family and others.	Intensive psychotherapy if pathological reaction to blindness develops.
<i>Social</i> <i>a.</i> Interpersonal Relationships	Encourage social activities similar to pre-blindness pattern.	Firm encouragement to resume some social activities.	Supportive counseling as client re-establishes appropriate social patterns.	If client continues to avoid social activities, activities planned with sighted groups.
<i>b.</i> Vocational Adjustment	Counseling support as client explores his feelings about blindness as they relate to employment.	Counseling concerning effect of blindness on client's present occupation.	Specific vocational planning and vocational training, if necessary.	Continued counseling, if necessary.
<i>c.</i> Family Relationships	Interpretation of client's condition; counseling regarding family's reaction to blindness.	Counseling concerning family adjustment and changes in family roles.	Continued counseling concerning family's adjustment to blindness.	If undesirable family relationships continue, referral to family counseling service for assistance.

participate in an intensive rehabilitation program. Care should be given to understanding the interaction of his blindness with his psychological makeup, and the relationship of his blindness to other physiological and social problems which may be a part of the etiology of the loss of sight.

The individual will experience the five general needs outlined in an earlier section, although the techniques used in assisting him will be different from those used with the congenitally totally blind person and the visually impaired individual. Having participated in the world of sight, his potential for adapting to blindness should be greater than that of the congenitally totally blind or visually impaired individual, and his memory of the visual world should aid him in developing proper compensatory techniques.

The needs of the adventitiously totally blind individual will be determined to a great extent by the age of the individual at onset of blindness. The younger the person is when he becomes blind, the more intense will be his needs and the less appropriate his skills and assets in adjusting to blindness. The needs of a very young adventitiously totally blind person will be more like the needs of a congenitally totally blind child than like the needs of a person who becomes blind at age 60. Consequently, the remarks made in the section of this statement concerning the needs of the congenitally totally blind person can serve as guidelines in developing a program for a person who becomes blind at a very young age. The needs of a person who becomes blind during middle life will also be different, and assistance to him will focus on helping him in developing compensatory skills, in understanding his blindness, and in making vocational adjustments.

TABLE III
Needs of Adventitiously Blind and Visually Impaired Persons, Ages 20 to 60 Years, Over Time Periods After Onset of Blindness

Needs

Age at onset

Levels of Analysis	0-3 Months	3-6 Months	6-24 Months	2 Years Plus
<i>Physiological</i>	Diagnosis and treatment.	Plans for long-term medical management.	Review and continued medical management.	Review and continued medical management.
<i>Personal</i>	Medical counseling. Personal counseling concerning personal reactions to blindness.	Continued medical and personal counseling. Appropriate training in mobility, orientation, communication and other skills for independent living. Fitting and training in use of appropriate optical aids.	Continued counseling regarding dynamics of reaction to blindness. Help in understanding reaction of others to blindness.	If depression or other pathological reaction develops, referral for psychiatric evaluation; also planned participation in social activities.
<i>Social</i> <i>a.</i> Interpersonal Relationships	Encourage social activities similar to pre-blindness pattern.	Firm encouragement to resume some social activities.	Supportive counseling as client re-establishes appropriate social patterns.	If client continues to avoid social activities, activities planned with sighted groups.
<i>b.</i> Vocational Adjustment	Counseling support as client explores his feelings about blindness as they relate to employment and retirement.	Counseling concerning effect of blindness on client's present occupation and retirement plans.	Specific vocational and/or retirement planning.	Continued counseling, if necessary.
<i>c.</i> Family Relationships	Interpretation of client's condition to family; counseling regarding family's reaction to blindness.	Counseling concerning family adjustment and changes in family roles.	Continued counseling concerning family's adjustment to blindness.	If undesirable family relationships continue, referral to family counseling service for assistance.

In an attempt to summarize the needs of the adventitiously totally blind person, Tables II, III, and IV have been developed. Table II concerns the needs of people who become blind at a very young age, Table III concerns the needs of people who become blind during middle life, and Table IV concerns the needs of people who become blind during their mature years. Each table concerns the needs of the individual at the three levels of analysis for the period following the onset of blindness. The needs described in the tables are additions to the needs common to all blind persons, as described earlier in this statement.

As has been stated in other sections of this presentation, the needs of the family members should not be overlooked and help should be given to them in understanding their own feelings as well as the feelings of the person who has lost his sight.

☐ In general, the needs of the adventitiously visually impaired individual are similar to those of the adventitiously totally blind person. The amount and type of residual vision will determine the particular rehabilitation techniques needed and the necessary modifications. As with the adventitiously totally blind, an adequate evaluation at the three levels of functioning is critical to adequate planning and comprehensive rehabilitation.

Tables II, III, and IV serve as a review of the needs of the adventitiously visually impaired individual for time periods immediately after the onset of his visual impairment. Reference should also be made to the needs of the congenitally visually impaired individual in understanding the needs of very young persons who become visually impaired.

As in the congenitally visually impaired person, the presence of some sight

TABLE IV
Needs of Adventitiously Blind and Visually Impaired Older Persons, Ages 60 Years and Up, Over Time Periods After Onset of Blindness

Adventitiously Visually Impaired Persons

The presence of some vision

can become the basis of further disability. The disabled person can use his limited vision as a basis for rejecting the implications of blindness and thus avoid taking advantage of the services available to him. However, the extent of his visual impairment makes it impossible for him to function as a sighted individual and consequently he has neither the advantages of the sighted nor the compensatory skills of the visually impaired. The same phenomenon can develop in the members of the family of the adventitiously visually impaired person and becomes another obstacle to training and rehabilitation.

Bliss, E. L. (Ed.) *Roots of behavior: Genetics, instinct, and socialization behavior*. New York: Harper & Row, 1962.

Jacobson, E. The "exceptions": An elaboration of Freud's character study. *Psychoanalytic Study of the Child*, 1959, **14**, 135-154.

Klein, G. S. Blindness and isolation. *Psychoanalytic Study of the Child*, 1962, **17**, 82-93.

Scott, J. P. The process of primary socialization in canine and human infants. *Society for Research in Child Development Monographs*, 1963, **28** (1, Serial No. 85).

Thompson, W. R., & Schaefer, T. Early environmental stimulation. In D. W. Fiske & S. R. Maddi (Eds.), *Functions of varied experience*. Homewood, Ill.: Dorsey, 1961.

References

Experiment in Job Placement

Two psychologists, R.J. Jones and Nathan Azrin, undertook a project which proved to be unusually successful in finding jobs for released mental patients, a group which routinely encounters discrimination in seeking employment.

□ In theory, an employer with a job opening publicizes it and then hires the best-qualified applicant. Jones and Azarin found that in practice, the employment process is "an informal job-information network in which persons with early knowledge of job openings (employers and employed persons) selectively and privately pass this information on to their unemployed acquaintances who are then likely to reward the job informants in primarily social ways."

□ Jones and Azrin designed their experiment to open the normally closed job-information system. They placed two ads in a local newspaper, both ads asking for information which would lead to the placement of applicants, in a variety of jobs. One add offered a reward of \$100 for successful leads. In one week, they located 10 times as many openings with the reward ad as they had in two weeks with the ad not offering a reward. The overall cost of the successful placements was found to be several hundred dollars less than the cost for the same placements through private agencies.

Theory

Closed Job-Information System

The Integrated Resource Room for Visually Impaired Children

ABSTRACT: The resource room program conducted by the Montgomery County (Maryland) Public Schools is designed to provide visually impaired children enrolled in regular classrooms with individual instruction in the special skills they require, including listening and study skills, special apparatus and braille codes, typing, orientation and mobility, low vision aids, and counseling and tutoring. The author, who is coordinator of the program, discusses the process of selecting the school within the system where the program is to be located, the criteria for admitting children to the program, and the use of staff—the resource room teacher, educational aide, and others. The positive effects of the program on the children are also presented.

ROSEMARY O'BRIEN, M.Ed.

Mrs. O'Brien is coordinator of the Program for Visually Impaired, Montgomery County Public Schools, Rockville, Maryland.

Montgomery County, Maryland, borders the District of Columbia on the north. It covers about 500 square miles and has a population of more than 700,000. Because of its proximity to the federal government, many federal agencies and business corporations have located in the southern part of the county and these have brought many professional and skilled people to the area. This has created a generally favorable social and economic climate. School enrollment exceeds 125,000 students.

The status that this county enjoys in the United States for the excellence of its educational program is largely due to an interested citizenry, favorable economic circumstances, and strong educational leadership. Although by most standards Montgomery County is considered economically affluent, it does have a number of families with low financial incomes who live in sub-standard homes in deprived neighborhoods.

Prior to 1950, more than 80 percent of all visually impaired children in the United States attended residential schools for the blind. Today, some 65 percent of this population is educated in regular classrooms in neighborhood local public schools. Traditionally, Montgomery County children with seriously impaired vision had attended Maryland School for the Blind. This type of residential placement will always be needed by some children: e.g. those with multiple handicaps for whom no local school placement is available and those whose family circumstances are not conducive to solid support at a given time. These would include a one parent home, very deprived homes, cases of child neglect or abuse, and instances where parents prefer, for reasons of their own, for their child to live away from home.

□ In the 1954-55 school year Montgomery County initiated itinerant teacher consultant service for visually impaired children. One special teacher was employed to serve the entire county and was assigned to the Department of Special Education. At that time, total school enrollment was 50,546 and three children were identified for services.

Recognizing that each blind child should be educated according to his indi-

History of Program

Philosophy

vidual needs, the Board of Education has subscribed to the philosophy that every child, regardless of handicap, has the right to remain with his family in his own community for his education, and that the community has the obligation to provide an education equivalent to that available to his sighted classmates. In the case of multiply handicapped children who cannot profit from available public school programs, placement in appropriate private schools is subsidized totally, or in part, by the Montgomery County Board of Education and the Maryland State Department of Education.

As the number of visually impaired children increased with the growth of the Montgomery County school system, their needs required closer personal support and several itinerant teachers were added.

In keeping with current trends, the itinerant teacher plan was the only organizational pattern of services for visually handicapped children utilized in Montgomery County until 1969.

As time passed and data accumulated on results with students, the staff became convinced that regardless of the type of program chosen, educators are not facing facts by simply saying that "a blind child is first of all a child" and then providing one kind of program on the assumption that as long as provision is made for these children to attend neighborhood schools, success will naturally ensue. The individual make-up or 'inner environment' of each will determine his adjustment or lack of adjustment to his school experience.

☐ Careful study of visually impaired children in Montgomery County has confirmed the conviction of educators in this field that no single type of program can adequately meet the needs of every child at every stage of his development. It is generally agreed that if a child has had the advantage of stimulating family and preschool experience, has high levels of ability and motivation in school, and has demonstrated emotional stability and adaptability, it may be possible for him to succeed adequately in an itinerant program from kindergarten through grade 12. Over the past 15 years, however, it has become evident that some pupils who have not had these advantages, need a resource room experience for some portion of their intermediate elementary or junior high years. Otherwise, they may become victims of an inevitable cumulative lag in their educational development.

☐ Thus, our request for an integrated resource room program was an urgent one. In its continuing commitment to meet the needs of this group of children, the Board of Education approved the program which began in September, 1969.

The resource room organizational plan is best described as a specially staffed and equipped room to which blind and/or partially seeing children *who are enrolled in regular classrooms*, come at scheduled intervals daily, for individual instruction in special skills or as a need arises. A certified teacher of the visually impaired and a special education aide are provided. The primary function of the aide is to prepare materials, under the direction of the resource room teacher, for visually impaired children to use in the classroom and to perform clerical duties as needed, i.e. researching of book orders, inventory, typing reports, etc.

Specific skills or areas of concern for which this resource program is designed are: 1) development of "learning by listening" skills achieved by using tape

Itinerant teaching plan

No Program Can Meet All Needs

Establishment of Resource Room

Purpose

Instructional goals

recorded texts of some content areas and appropriate oral group activities; 2) study skills, usually begun in fourth grade, including dictionary, map, and basic research skills; 3) special apparatus and advanced braille codes requiring sequential daily instruction; 4) typing, which is begun in fourth grade or when readiness is established; 5) orientation and mobility; 6) experience with a variety of low vision optical aids; 7) counseling and training in new modes of learning for the newly-blinded child; and 8) tutorial assistance as needed.

☐ Several important criteria served as guidelines in the choice of a school:

1. Administrative attitude is probably the most important factor in the success of such a program. Unless the philosophy of the school principal and his assistant embraces this concept and supports it fully, the resource room program will not be successful.

2. Location of the school is important since children must be transported from all parts of the county. A central location is most appropriate in order that no child should have to ride the bus more than 30 minutes to get to school.

3. It is essential that the school be large enough to have several classes at each grade level, in order that no regular classroom teacher be asked to accept responsibility for more than one visually impaired child at a time.

4. Selection of a school typical of county-wide achievement averages is essential to provide experiences that best prepare the visually impaired child to cope with secondary school in his area.

5. In order to insure full supportive services available in Montgomery County, the school should have the regular services of a speech therapist, reading specialist, school psychologist, physical education instructor, and, if possible, a guidance counselor.

Administrators of the selected school and of the Program for Visually Impaired have delineated the following criteria for resource room placement. These have been approved by the director of special education.

The focus of this resource room program is to prepare children to meet the intensive demands of the secondary school program in Montgomery County. To this end, an individualized approach to the fullest development of appropriate skills in the defined areas of concern, must be the goal for each child enrolled in the resource room.

☐ It is agreed that to be eligible for assignment to the resource room, vision impairment must be the child's major handicap. In addition he must: 1) be enrolled in the Program for Visually Impaired; 2) be in the normal intelligence range or above, as indicated by psychological evaluation or by successful functioning at grade level; 3) be functioning academically within one year of grade level generally; 4) show evidence of readiness to profit from intensive preparation in the areas described. (It should be noted that children with health problems which limit their full participation in the school day, may be enrolled if other criteria are met. Decision will be made only on individual assessment of the child and his needs by the principal, the resource room teacher, the itinerant teacher currently serving the child, and the coordinator of the vision program.)

Referral must be made directly to the office of the Program for Visually Impaired. It may be made by the itinerant teacher, the local school principal, pupil

Criteria for School Site

Location

Size

Type of school

Special services

Placement of Children

Referrals

personnel worker, or parent. A team including the coordinator of the vision program, the school principal, and the resource room teacher, will assess all referrals. Transportation will be furnished by the Board of Education.

It is the responsibility of the principal, in consultation with the resource room teacher regarding the special needs of individual pupils, to determine appropriate classroom placement.

The following guidelines have been designed to determine the length of a child's enrollment in the resource room program. "Children will return to their local schools when, a) they have completed 6th grade, or when, b) in the judgment of a team including the resource room teacher, classroom teacher, principal, and the coordinator of the Program for Visually Impaired, the child has reached the highest level of skill possible in the resource room, at his developmental level. (This is referring specifically to skills in the areas of concern for which this program was designed.) Some children may require two years while others may need more."

It is the duty of the classroom teacher to provide the same program and educational opportunities for the visually impaired child as are given to his sighted classmates. If the teacher finds that the child is unable to function in this setting, then she should initiate the usual referral to the principal for re-evaluation of the child's needs and problems.

If the problems cannot be defined or resolved in the classroom or by the school alone, then the principal may elect, with parental permission, to refer the child for psychological testing. The vision office is routinely notified so that appropriate consultants, with experience in the evaluation of blind children, can be involved. Exploration of the findings with the parents follows regular school procedures.

☐ The resource room staff is responsible to the principal of the elementary school in which they are based. Since these children, however, are enrolled in the resource room for a comparatively short segment of their total school experience, it is necessary that the resource room teacher retain his identity as an active member of the vision staff. In order that a continuous concept of services be maintained, all guidelines, regulations, and reporting requirements of the total vision program staff are also responsibilities of the resource room teacher.

Although the resource room teacher is based at an elementary school, he or she is selected by the coordinator of the Program for Visually Impaired. In addition to a high degree of skill and training in the education of visually impaired children, the teacher must have had at least five years of successful experience in implementing a resource room program. It is also important that this expertise include the ability to work effectively with many classroom teachers and problems.

As agreed by the principal of the school, the resource room teacher is responsible for attending all vision staff meetings in the interest of improving services to children, for dissemination of program information, and for inservice and professional training.

All materials, supplies, and equipment are requested on appropriate forms from the Program for Visually Impaired. In every case, the student's name should be included with the request. These remain the property of the vision

Length of stay

Reassessing children's needs

Resource Room Staff

The teacher

Materials, supplies, equipment

program and are subject to transfer as individual needs and program obligations change.

A committee composed of the school principal, assistant principal, and coordinator of the Program for Visually Impaired assist in the evaluation of resource room staff in terms of program goals and services to children.

The special education aide is selected by the coordinator of the Program for Visually Impaired and is a member of the staff of the vision program although she is based in the resource room. This aide works under the direct supervision of the resource room teacher. Some of her duties include: 1) transcribing regular print materials and tests into large print; 2) typing all records and reports originating in the resource room; 3) maintaining inventory records; 4) researching all teacher requested texts and materials for availability and filling out appropriate forms for forwarding requests to the Program for Visually Impaired; 5) assisting with the following as requested by the resource room teacher, i.e. bus duty, playground activities in which a visually handicapped child needs assistance, and selected activities (learning, classroom, or other) as suggested or deemed necessary by the resource room teacher.

Special education aide

The resource room teacher and aide are full members of the faculty in the elementary school in which they are based. Hall duty, bus duty, lunchroom duty, playground duty, faculty meetings, and in-school committees, are shared equally with regular staff.

Utilizing resource room staff

Only in very rare emergencies, however, should the resource room staff be used to substitute for teachers who are absent. If they are, indeed, fulfilling their professional responsibilities to visually impaired children and their teachers, time is at a premium and use of it is a serious matter.

☐ An orientation and mobility specialist is assigned to the resource or itinerant program by the coordinator of the vision program as needs of specific children require this service. He is based at the vision office. Requests for orientation and mobility evaluation or training must be filled out for students by the resource room teacher and submitted to the coordinator of the Program for Visually Impaired. All scheduling with classroom teachers is to be done by the resource room teacher. As the coordinating teacher in charge of the resource room, he or she must have total responsibility for scheduling supporting activities and services.

Orientation and Mobility Services

In order that the resource room function as an integral part of the school program in practice as well as in theory, sighted children who can profit from experiences in a resource setting are enrolled for them. This may include those with extreme handwriting problems who can learn to type, slow readers who need either the recorded materials available there or the small group activities, i.e. remedial reading or math, etc.

Integrating sighted children

☐ The real success of this or any resource program can only be measured in its effects on children. Enthusiastic and genuine administrative support within the school, coupled with an experienced resource room staff providing an inviting and exciting room where all who can benefit are welcome, and an unfailing sense of humor and caring, have provided an optimum setting for learning and growing academically and emotionally.

Effects on Children

It has been the observation of school administrators and vision program staff

Several advantages

alike that certain specific advantages accrue to children in the resource room setting. Social development is enhanced by a developing awareness and understanding of differences in people and the relative unimportance of those differences. First and second graders who see a blind classmate negotiate the cafeteria line and find her seat at a remote table in the lunchroom independently, develop a new kind of respect and tolerance for those who are different from themselves. The blind child who finds ways of sharing or assisting a peer with recorded materials, solving a math problem, or learning to play chess, learns early that he is of value to his fellow man and his self-concept is greatly enhanced. It is not uncommon to find a visually impaired child and a sighted friend engrossed in chess or other activities in the resource room during a free period.

The real value to all children in the school is a growing acceptance, respect, and friendship for each other regardless of physical differences.

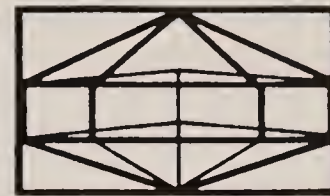
Visually impaired children enrolled in the resource program for the first year (and their parents) often verbalize their relief at realizing that there really are others with similar problems who are functioning successfully in public school. Too often, a visually impaired child is enrolled in his neighborhood school and, although his academic needs are met to some extent, too little attention is given to his emotional growth. He is simply "expected" to be "normal" for perhaps the first time in his life. Even a brief association with peers who have had to cope with some of the same unique problems can support real social and emotional adjustment under the daily guidance of the resource room teacher.

Mutual acceptance

Coming Next Month

The November 1973 issue of the *New Outlook for the Blind* will feature a special section entitled "Voluntary Agencies: New Roles? New Responsibilities? New Problems?" The articles comprising this section will include "Voluntary Agencies: A New Look," by Benjamin Wolf, A.C.S.W., regional consultant, American Foundation for the Blind; "The Accountability of Nonprofit Institutions in a Free Society," by Owen R. Davison, consultant to funds and councils, Community Services of Pennsylvania; and "Shoals and Storms Ahead?" by H. H. Urrows, a private consultant to foundations and nonprofit organizations.

A Special Section



Some years ago, there was a popular song—popular for a time at least—entitled “Friendship.” As I recall, it was a rather raucous and not very melodic tune, but it did get across the message that friendship is a pretty important commodity.

Back in June of this year, I had occasion to reflect upon the subject of friendship in the field of services to the physically handicapped in general and for the blind in particular. Specifically, I was privileged to be present when unreserved love was extended to two individuals—Miss Marjorie Hooper and William McCahill.

As a coincidence, they were both officially retiring from their respective positions. Their positions actually had been more like careers, since each had been in those capacities for more years than their youthful appearance and manner would indicate. For those of you who may not know them, Marjorie was for many years—or possibly decades—with the American Printing House for the Blind, and William was for about the same length of time the executive director of the President’s Committee for Employment of the Handicapped. She would not say how old she is—he made a point of acknowledging 57 years, the luncheon in his honor in Washington being on the occasion of his current birthday.

Miss Hooper was feted at a smallish banquet in Chicago for which each of us paid seven dollars. Mr. McCahill’s luncheon cost 12 dollars. Perhaps the difference is only a matter of restaurant and menu, but then again it may be another indication of subtle discrimination.

I started out talking about friendship and I intend to get back to the subject. In nearly 30 years of personal involvement in work for the blind, I have never ceased to be amazed at the extent of real camaraderie that exists among us. There have

been moments, of course, of superficial animosities between warring factions or between private agency leaders and governmental officials and cities or states vying for the venue of a forthcoming convention, but even the friction was diluted by friendly fighting understood to be part of the game. Even Joe Clunk and Bob Irwin—totally committed to different philosophies—probably had a healthy respect and a sort of friendship for each other.

To my mind, in an emotionally charged field like this one, this willingness to meet the other fellow halfway is absolutely essential if a sense of perspective is to be maintained. When Bill McCahill responded to the many expressions of good will and affection he received, he said, among other things, that upon occasions like this other people “overlook one’s faults and give one praise for one’s virtues.” It may be it was happening even before he retired. Why? We all know that none of us is perfect, and we hope for the same forgiveness from others.

Marjorie Hooper’s mini banquet was just about the greatest outpouring of friendship I have ever seen. To a man—and woman—there was uninhibited affection shown to a very great lady. Peter Salmon’s Irish songs may not have been appropriate (Marjorie is not from Ireland) but Peter was never in better voice, and it mattered not that she had to interrupt Max Woolly in his citation address to correct his facts.

So why all this? It is because at the Chicago event there was just a few yards away another activity going on that was distinctly unfriendly. People who were blind—and some who were not—were picketing the meeting of the board of the National Accreditation Council. I know that demonstrations of all kinds are not characteristically friendly, but to the general public

this one must have taken the cake. Why should blind people, and those who are dedicated to assisting them, fight each other? It’s a good question.

Whatever the problem, it must be resolved. There must be rooms full of friendship for all of us to occupy, and they are waiting to be filled. See you there.

Public Education?

There was much publicity in New York City during the convention of the National Federation of the Blind in July. I was especially intrigued by the radio report which went something like the following: “There was a demonstration in town today. It was exactly that—a demonstration by the blind that they can walk across town.”

Wonder of Wonders

Remember when the AFB was criticized by some for using the blindfold gimmick in seminars about attitudes that involved sighted people? Well, right or wrong, somebody has stolen our thunder and his name is Stevie Wonder. I make no comment and leave it to you to judge for yourself the following story from the New York Post written by Lindsay Van Gelder:

The whole idea, said the press release, was “a journey into the mind of Stevie Wonder,” a chance to really feel what it’s like to be a brilliant, stone-blind rock star.

After a few hours of stumbling, groping and dripping mascara behind a chocolate-and-gold-silk Stevie Wonder Regulation Model blindfold, I didn’t feel all that brilliant. On the other hand, Stevie Wonder sings a whole lot better than I do.

The magical mystery tour began at Broadway and 46th St. yesterday afternoon aboard a chartered bus bound for a secret destination and "a special sensory preview of Stevie's new album, 'Inner Visions.'"

Jane Friedman of the Wartoke Concern, the counter-culture P.R. outfit, issued blindfolds to some two dozen reporters and handed out vials of "Essence of Inner-Visions" perfume. While we sweated and fought carsickness under our silk blinders, she and fellow Wartokers made loud comments like: "Is that the Queensborough or the Williamsburg Bridge?" and "Who has some change for the Lincoln Tunnel?"

After what seemed like a 400-mile journey across every pothole in the tri-state area, the bus stopped and Jane explained

that each reporter would be assigned to a seeing-eye person. My seeing-eye person failed to mention the luggage rack above my seat. Smash.

"That's what Stevie has to cope with every day," someone said cheerfully. I muttered something nasty, not in Braille.

I was then passed on to a new seeing-eye person who said her name was Sharon and who was exceedingly diligent at spotting stairs, walls and other protrusions. She also brought me wine, fruit and peanuts, lit my cigarettes, told me the time and described the room we were in.

"I don't know about you," said Sharon, "but I feel very loving and protective toward you."

"I feel like a big, helpless, klutzy baby," I said.

Then they played "Inner-Visions" for us. The music was fine—the finger-popping, foot-stomping stuff that, as they used to say on American Bandstand, "has a good beat, ya can dance to it." Ever try to dance with a blindfold on? Despite Sharon's best efforts, I found myself inventing a brand-new step, the Drunken Sailor Lurch.

Finally, we were allowed to take off our blindfolds. Peering into the light like a newborn mole, I stepped out the door into what I was sure was either New Jersey or Long Island.

We were on W. 57th St. Out of sight.

Copyright © 1973,
New York Post. Reprinted
with permission.

—M. R. B.



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master . . . original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation



From Shelter to Self-Reliance—A History of the Illinois Braille and Sight Saving School, by Walter B. Hendrickson. Jacksonville, Illinois: Illinois Braille and Sight Saving School, 1972. x + 235 p illus. \$6.00.

Reviewed by Warren Bledsoe

The Illinois Braille and Sight Saving School is unique among residential schools for the blind in being a subject of interest to a professional historian, Walter B. Hendrickson. In 1968, when he was professor of history at MacMurray College, Dr. Hendrickson published a monograph entitled *Frank Hall and His Braille Writer*, a correct and polished historical document. His history of the Illinois Braille and Sight Saving School is a full-length book which is a detailed, chronological account of the school's development.

In his introduction to the book, Jack Hartong, the present superintendent of the school, says, "A residential school for the visually handicapped that has been providing for the educational needs of children for over 120 years has a history that should be recorded and preserved. This book has that purpose."

Of the means by which this was accomplished he says, "Since the early years of the 1890's when Frank Hall wrote a brief history of the Illinois School for the Blind, no additional history has been published. Through the urging of several members of the staff and the alumni of the school, the idea of writing a current history of the Illinois Braille and Sight Saving School was presented to the administration of the Illinois Department of Children and Family Services, and authorization to undertake such a project was requested."

The authorization was not only granted, but backed up financially by the Department of Children and Family Services and the Division of Education and Rehabilitation Services, for which Mr. Hartong

thanks Edward T. Weaver and Lee A. Iverson. Perhaps the most important thing this review can say is that such things are possible, at least in Illinois.

Obviously it is not a simple task to write such a book, even for a professional historian—indeed especially for a professional historian. Institutions, even more than individuals, do their level best to outwit their biographers. Schools are no exception. Their custodians, who can hardly survive without a good reputation in their lifetime, acquire clerical habits from which there is very little left behind to conjure up a vivid portrait of an institutional personality. Nor are schools good living sitters for such portraits, as many writers of annual reports acknowledge as they discreetly resort to formal, solemn, full-dress photographs of their many-peopled, complexly budgeted, often unruly, beloved, infuriating subjects. Few authors of such reports have followed the example of Samuel Gridley Howe's report containing an impassioned refusal to stop dipping Perkins boys in icy bath water on winter mornings (especially since it contained a statement that he would resign before stopping the practice and the addition that boys who turned *blue* during the ordeal were excused from participation).

Doubtless nobody knows better than Dr. Hendrickson that he must surely have missed things he would have liked to put in his book because they were shredded, as the term now is, though manually, and, what is even more likely because school people everywhere often follow the rule, "Everything well to know is not well to say." A rather interesting sidelight on the Illinois school would not have survived if one day late in her life Lady Sophia Campbell had not discovered her stepson Guy was about to dispose of virtually all the Campbell papers at the Royal Normal College for the Blind. She stayed his hand,

took the papers into custody, brought them to America, where after no mean Odyssey they came to a safe haven in the rare manuscript room of the Library of Congress. There we find correspondence in which Sir Francis Campbell, while still merely Dr. Campbell, set forth to someone of consequence in Illinois the terms under which he would be willing to return to the United States and become superintendent. One of his stipulations was that the school must move to Chicago where it could nestle close to the cultural growth of the metropolis, especially with respect to music, as the Royal Normal College nestled close to the Crystal Palace in London. He issued quite a blast against the location of the school at Jacksonville. Campbell, of course, never became head of the Illinois school, which never moved to Chicago.

Dr. Hendrickson's association with the present Illinois Braille and Sight Saving School stemmed from his preparation of the paper on Frank Hall's braillewriter which was done for a meeting of the Illinois State Historical Society that was held in Jacksonville in 1955. After this he had many personal associations with the school, and was acquainted with both pupils and staff socially and professionally. Upon his retirement from teaching at MacMurray College, he took on the task of writing the school's history and at that time became intimately associated, as an insider, with its functioning. He had endless colloquies with both pupils and staff, alumni and prominent interested citizens, and was at all manner of school functions from coffee breaks to graduations, steeping himself in the school's records and reading extensively the literature of blindiana about other schools and institutions. In this regard the Illinois school seems to be better furnished than are many other agencies serving the blind, having a history room which was pro-

When it comes to Electronic Visual Aids for the Partially Sighted, Why Choose Visualtek?

Here are **FOUR** good reasons:

1 THE BEST PRODUCTS

Highest quality *consistently*, maximum flexibility in usage because of 'tailored configurations' to meet the needs of each individual user or agency, unexcelled versatility.

2 SERVICE AND SUPPORT

Not only when there's an occasional equipment problem, but also in a variety of other ways; support of organizations like AAWB, NFB, and ACB; free literature in any quantity; program participation at all levels; and advice and assistance to obtain maximum benefit from your electronic visual aid. We've even serviced our major competitor's equipment, for a major government agency, when they needed prompt and effective repair of a malfunction!

3 LEADERSHIP AND COMMITMENT

Visualtek was founded almost three years ago with the primary objective of "helping the partially blind to become partially sighted", and Visualtek has followed

through on this commitment by being the first to develop and produce a Typewriter Accessory for electronic visual aids, Margin Stops, Forward Viewing ("blackboard viewing"), and a variety of other useful features and accessories. But we didn't stop there; the latest result of Visualtek's extensive research and development activities is the Miniviewer, a product for which no comparisons can be made because there is nothing like it! This is *commitment!*

4 HIGH VOLUME AND LOW PRICES

With over 6,000 square feet of space for production of electronic visual aids (and related administrative functions), Visualtek has achieved the highest production volume of any supplier of electronic visual aids, and has *lowered its prices* to pass along the resulting savings to its satisfied customers. With some configurations starting at \$895, Visualtek offers the same savings to *all* its customers, not just a favored few who can negotiate for low prices. We've worked hard to earn our reputation, and we'll work harder in *every single case* to make sure it isn't tarnished . . . that's a promise.

These are the reasons we say, with pride . . .

VISUALTEK *Helping the partially blind to become partially sighted!*

WHERE IS YOUR NEAREST VISUALTEK REPRESENTATIVE?

Arizona: Phoenix
California: Sacramento, San Francisco Bay Area, Los Angeles, San Bernardino, Santa Barbara, San Diego
Connecticut: see New England
Delaware: Wilmington
Florida: Miami, St. Petersburg, Jacksonville, Tallahassee
Georgia: Atlanta
Hawaii: Wailuku *
Idaho: Boise *
Illinois: Chicago, Rockford *
Indiana: Fort Wayne
Louisiana: Baton Rouge, New Orleans
Maine: see New England
Maryland: Baltimore
Massachusetts: see New England
Michigan: Grand Rapids*, Detroit*
Minnesota: Milwaukee
Mississippi: Jackson
Missouri: St. Louis
New England: Boston
New Hampshire: see New England
New Jersey: New York City, Philadelphia, Park Ridge
New Mexico: Albuquerque*, Santa Fe*
New York: New York City, Albany, Syracuse*, Buffalo
Ohio: Cleveland, Dayton
Oklahoma: Tulsa, Oklahoma City
Oregon: Seattle
Pennsylvania: Philadelphia, Pittsburgh, Scranton
Rhode Island: see New England
Texas: Dallas, Fort Worth, Houston, Austin, San Antonio
Utah: Salt Lake City
Vermont: see New England
Virginia: Richmond
Washington: Seattle
Wisconsin: Milwaukee

**Demonstrations can be arranged in these areas, even though there is no resident Visualtek representative.*

All other areas listed, plus Ontario and British Columbia, are served by nearby Visualtek representatives.

moted by the alumni.

Dr. Hendrickson did not depend entirely on the school's professional library, however, making use as well of the two great American libraries of blindiana, that at the American Foundation for the Blind and the Perkins School. He read such works as Isabell Ross's *Journey into Light* and Richard French's *From Homer to Helen Keller*. He had read to him the volumes of the school's *Illinois Braille Messenger*, which contained many pages of school news. He read the *Proceedings of the American Association of Instructors of the Blind*, the old and new *Outlook for the Blind* and the very old, very short-lived and very important *Mentor*, with which from 1891 to 1894 Joel Smith set a pattern in the United States of the magazine devoted to the interests of the blind.

Dr. Hendrickson's "Preface and a Note on Sources" is one of the most interesting pages of the book, an excellent guide for the student in pursuit of learning in the field of work for the blind.

The Illinois Braille and Sight Saving School suggests to most workers not only the redoubtable Frank Hall and his braille-writer (which was the first real threat to New York Point), but the equally redoubtable Lewis W. Rodenberg and his braille print shop. Coeval with Rodenberg was Robert W. Woolston, around whom there grew a legend that he ran a state school with a devotion to excellence and an independence which the private corporate schools have had a habit of arrogating to themselves. There is a spontaneous curiosity over how all three subjects will be treated in Dr. Hendrickson's book, at least for anyone familiar with the fables of work for the blind. This Dr. Hendrickson seems to have anticipated and to have made up his mind not to let these personalities pull 120 years of history out of shape. In treating them he was not carried away by the picturesque, but rather exhibited a professional historian's resistance to propaganda. He does not follow the usual pattern of damning state politicians indiscriminately, contemplating without pious horror the natural consequences of living in a democratic republic with a two-party system. It gave us Frank Hall. It took him away . . . twice.

Though written in a clear, interesting style, Dr. Hendrickson's book is low key and actually intended for the academic reader. As such it is a real contribution to the literature of work for the blind. No other school has such a biography. Various personal memoirs have been written. But so far no one else has bothered to go through and write in a book the entire life story of one of the great residential schools for the blind, from the day of opening to the present, epoch by epoch, treating epidemics, personnel, budget, evolving purposes, and even the characteristics of superintendents. Dr. Hendrickson thinks Mr. Woolston, for example was not so much above politics as a master politician himself, though one who used his art entirely for the good of blind children, as he saw it. (And doubtless if the truth were known this might be said as well of the heads of the private schools who after all drew large sums in "state aid" year after year.)

Dr. Hendrickson's chapters label the epochs as he sees them:

"Beginning, 1847-50; Putting Down Roots, 1850-74; Consolidation and Expansion, 1874-90; Revolution in Education, 1890-93; Years of Transition, 1890-1920; Educational Advance, 1920-1947; New Responsibilities, 1947-1970." In depicting other ages he is untainted by the vice Woodrow Wilson thought the most "benighting," namely the "patronage of one time toward another." It is to be hoped that the reader will not be prejudiced against him for his virtue in this regard. Few issues have been so controversial in work for the blind as the role of the residential school. Few institutions have produced such love and hate as the old "congregate" schools of the nineteenth century, which Randolph Latimer said bore a strong resemblance to Queen Victoria's court, the all powerful matron causing even the superintendent to tremble when he poached on her preserve. It is very hard to tell anything at all about the residential schools to people whose first and last response is "They should all be abolished. Why did anyone ever start one?"

Such people will hardly read this book. They should read instead (or at least first) Howe's address on the laying of the cor-

nerstone of the Batavia school. The great man searched his soul not only when writing final reports, but in his public addresses. And he probed the "why" of the residential school rather thoroughly while ruminating over Batavia's cornerstone, having already had a hand, he said, in getting 12 such schools under way. This debate with himself by Howe is a classic to which Dr. Hendrickson's book, a little over 100 years later makes an interesting companion piece.

A great teacher of the blind, Jessica Langworthy, said there were three wrong attitudes toward a blind child: "pity, wonder, and incredulity." Whatever may be said for or against residential schools, it is uncommon for these social weeds to flourish there. An absence of sentimentality toward blindness generally prevails, though it may take a decade or two to establish institutional habits which guarantee it. Dr. Hendrickson's book without ever saying so precisely brings out very clearly a characteristic lack of sentimentality in the Illinois school. This is saying a great deal for any agency for blind people.

But his book also brings out one of the great dilemmas of work for the blind. He draws it into focus in the saga of Samuel Bacon, the blind pioneer in education who was the first principal of the Illinois school and who also got the Iowa and Nebraska schools under way before he went on to make his fortune in land and farming. His story contains almost all the familiar characters in the dynamics of education and work for the blind in the early stages: the status figures, the hewers and hawlers, the shining examples, the catalyst. First and last Sam Bacon played all these roles, and there is little doubt that he was a genius, at least in mathematics. Yet his career was illustrative of the vanishing of the blind head of the residential school, who pioneered the state schools of the Middle West. Attention was called to this by Dr. Thomas Rhodes Armitage when he visited the United States and wrote about American education of the blind in 1884. Dr. Armitage blamed the sighted take-over on politics, but the four great private corporate schools in the East had only two visually handicapped heads during their first hundred years. (Loughry of Maryland and

OPTISCOPE®

Illuminated Enlarger System

MODEL C

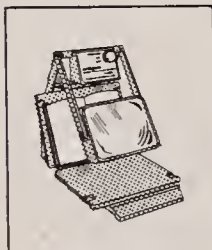
see any print
ILLUMINATED
and **ENLARGED**
in black and white
or full color

**A MORE
SELF-SUFFICIENT LIFE
FOR THE PERSON
WITH LOW VISION**

\$295

f.o.b. Hempstead, N.Y.

Also available from Opaque Systems Ltd.



Better Vision
Lens System
MARK V



Electronic
Enlarger System
ELECTRO CC 5000

The Optiscope Illuminated Enlarger System-Model C is a *new medical instrument* that now enables thousands of partially sighted persons and persons with low-vision capabilities to read books, newspapers, magazines and personal letters, or to view treasured photographs. All in black and white and full color.

The Optiscope projects an illuminated image on a large 9 in. x 14 in. polarized screen and the unique OPTILITE Comfort Control regulates the illumination for one's personal comfort. The unit is compact, portable (only 14 pounds) and simple to operate.

Also available from Opaque Systems Ltd., is the Better Vision Lens System-Mark V with the Optilite Comfort Control and the Electronic Enlarger System Electro-CC5000, a single unit, compact, self-contained closed circuit television system.

Write or call to order any of these low-vision aids or for additional information and color brochures.

Copyright © 1973, Opaque Systems, Ltd., Hempstead, N.Y. Patented other U.S. and foreign patents pending. Specifications and prices subject to change without notice.

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

Wait of New York, whose vision problem was so slight he could hardly be considered blind).

Bacon's presence in Jacksonville as an extremely gifted young stranger was the spur which excited people of substance to start a school. He engineered the hard but stimulating demonstration period, working indefatigably. Nevertheless, at the time of mutation from experiment to institution a familiar cloud of misunderstanding developed between him and "practical" administrators. And when it dissolved he was no longer in the picture.

Bacon moved on to other pioneering, as

it turned out losing nothing thereby in the long run. The school, however, seems to have experienced one of those strange periods of disconnection from the true potentials of blind people, during which without doubt there was progress of an administrative kind, which is often the case. Not until the days of Frank Hall did it seem to get back a spirit of enthusiasm for bearing down on the problem of blindness per se. And this evokes the recurrent conundrum of how to reconcile 1) real familiarity with problems of blindness and 2) administrative tidiness. Keeping this in balance is an ever-recurrent challenge in the

field of work for the blind, and Dr. Hendrickson's book is an important addition to the literature which sheds light on this subject.

Mr. Bledsoe is chief consultant, Office for the Blind and Visually Handicapped, Rehabilitation Services Administration, U.S. Department of Health, Education, and Welfare, Washington, D.C.

Comment



A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be 350-1,000 words in length.

To Braille or Not to Braille . . . ?

Miriam H. Lipman

The newly blinded adult of fifty or more is likely to find that, using the criteria which seem to make sense to agency counselors, he will be greatly discouraged from "bothering." If his fingers are affected by diabetes or another debilitating disease, so much the worse for him! Especially if he is afflicted during the first period of rehabilitation, when there are so many other items, such as personal hygiene, financial management, and mobility, to be mastered. Whatever aptitude he may have for

learning braille will probably be overlooked. What with the talking book program, cassettes, and tapes, why need he bother?

My own studio apartment is so full of recorders that a friend designates it "spy center." Each piece of equipment has its uses, and I do not regret the expense for any of them. Nevertheless, one of the most useful items is the braille-writer, followed closely by the pocket slate and shower hook (which I use for a stylus, so that I can take it wherever I could take a pencil). Actually, I do not write well with slate and stylus, but I feel more comfortable when I have something to write on and something to write with.

Recently, on a train trip, the first I had taken alone as a legally blind person, and with no one to meet me, I took two helps: 1) A cassette player, on which had been recorded the time of departure and arrival; the hotel reservation data, including when and how made; information for the clinic

appointment; return trip data; and emergency telephone numbers; and 2) A braille copy of the items on cards, as needed, and additional cards usable with the slate. The recorder was packed so that I could play it en route. The first braille card, the hotel address, was used in the taxi on arrival.

I had also brailled six labels with the appropriate abbreviations for each of my medications, so that I could identify each of the little pill boxes.

My address file is in both braille and print so that both my helper and I can look up an address or an account number.

Perhaps the most useful function of the braille label is in the identification of various machines, no two of which work exactly the same way. The braille label permits me to distinguish between, for example, the "pause" button and the volume control. Cassettes, which I use liberally for music instruction, are braille labelled on the right side with the brand name, and on the left side with the number of min-

PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

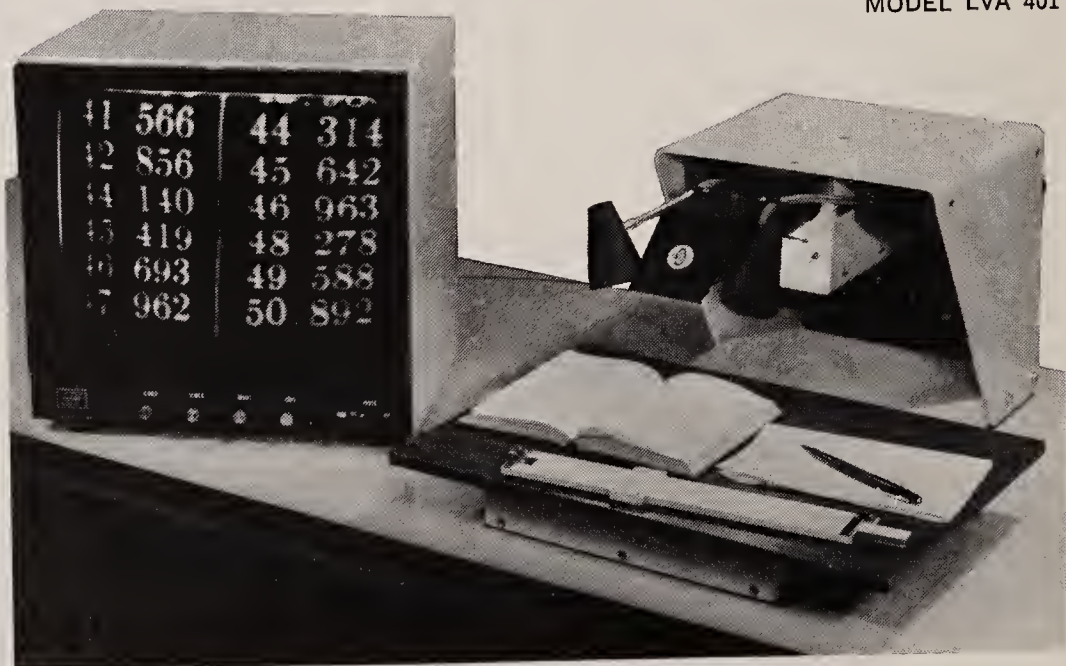
New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)



MODEL LVA 501



351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402



MODEL LVA 401

utes of playing time, leaving the top space for the name of the selection. The name of the selection is also placed on the outside container. They are then easily found or filed.

Still another use of braille labels is for clothing, in those instances where several bits of information are needed, for example, both length and color of a slip. A braille label, unpeeled, is punched so that

a safety pin will go through the hold. It is then easy to pin the label around the shoulder strap.

I do not attempt my own bank reconciliations, but each week, when the bills have been paid, I enter in a braille notebook the date and the balance in the checking account. I also have a monthly budget figure which varies, as big items, such as income tax, come due. This is in

braille, so that I can estimate where I stand.

It was difficult for me to learn braille, and I am still a poor reader—the impossible does take a little longer. Nevertheless, I hope both agencies and clients will regard the braille-versus-recording problem, not as either/or, but as “both/and.”

Mrs. Lipman is a resident of Crowley, Texas.

Independent Travel as a Way of Life for Multiply Handicapped Young Adults

Billie Louise Bentzen

The 25 students at the residential Learning Center for the Visually Handicapped sponsored by the Protestant Guild for the Blind, Inc., Watertown, Massachusetts, learn that self-responsibility includes getting themselves where they want to go.

Many students, on coming to the Learning Center, between the ages of 16 and 20, have previously been allowed to be completely dependent on their families or school or institution personnel to guide them, even to indoor objectives. Others have had varying amounts of training in orientation and mobility, which hastens their adjustment to self-responsibility. All are multiply-handicapped, having mental retardation, brain damage, hearing loss, or an orthopedic handicap in addition to a visual handicap.

The mobility curriculum for students at the Learning Center includes development of basic concepts and good motor-spatial skills such as balance and coordination, and instruction in the techniques of using a sighted guide, using protective techniques in indoor and outdoor situations, campus travel, residential travel, and small business and metropolitan travel. Lessons, which are individually planned for each student, may extend over a period of five or more years, and may equal hundreds of hours of instruction for some students. The curriculum is not unique; however, the method used in making independent travel an integral part of students' lives is considered essential to the

continued optimum functioning of these multiply handicapped students in all areas of life. Many of the students have sight sufficient for travel without a cane, however, they often have poor concept development, balance, gait, memory, and judgment, as well as lack of experience. They therefore profit from the same units of instruction in orientation and mobility provided for totally blind students.

As students acquire each new orientation and mobility skill or learn a new route, it is incorporated into their daily lives. For example, as soon as a new student learns the route to the dining room and is able to negotiate it promptly, he is given no help in getting to meals. He is responsible for arriving on time. When a student learns touch technique, even though he knows no outdoor travel routes, he walks by himself (in the company of other students and staff) when traveling in nearly all outdoor environments. The route to a mailbox (which involves no street crossings) is the first off-campus route a student learns. When he has mastered this, it becomes his responsibility to take mail from the secretary's office to the mailbox several times each week. Next, depending on his interest, ability, and amount of residual vision, a student may learn the skills and concepts involved in traveling a primarily residential route to an ice cream parlor. Upon mastering this route, he will be encouraged to go to this store by himself. Initially a trained staff member observes his crossings; later he travels without observation. Each student has a small school job for which he receives a weekly paycheck. Learning to go to the bank independently is an important goal for most students. When a stu-

dent has mastered this route, he travels it independently each week, although he may be observed and/or met at the bank for help with the skills involved in banking.

As students progress in independence, responsibility, travel skill, judgment, and appropriate interaction with the public; and as their awareness of and interest in the community increases, they learn routes to such objectives as the drug store, dime store, dry cleaners, barber shop, post office, sandwich shop, local church, library, supermarket, and hardware store. They are then assigned regular errands to the objectives which they know and which interest them. For example, one student takes clothes to the dry cleaners on Monday, and another picks them up on Thursday. Students are sent to the dime store for small stationery purchases and to buy their own soap, toothpaste, deodorant, etc. A student buys newspapers for the staff each day. Two students share the pick-up and delivery of local church bulletins which are folded at the school. A partially sighted student makes a weekly trip to the library to pick up books selected by the librarian for leisure reading at the school. New objectives and assignments are regularly added.

As their competence increases, students learn the complex public transit routes to their homes, as much as 100 miles away, and to meaningful objectives in the greater Boston area. When students can travel home independently, they make weekend visits without assistance. When they handle the public transit system ably, and appropriately use public assistance, they are permitted to visit objectives in metropolitan Boston to which they have not been taught routes.

Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

When students near completion of their time at the Learning Center, they are taught routes they will need in traveling to and from their homes, or other residences; to their job placements; and to other objectives which are meaningful to them.

Thus, independent travel becomes as much a way of life for these young adults as dressing themselves and caring for their belongings.

Mrs. Bentzen is supervising teacher and peripatologist, Learning Center for the Vi-

sually Handicapped, Protestant Guild for the Blind, Inc., Watertown, Massachusetts. A detailed description of the mobility program at the Center is available on request from the Protestant Guild for the Blind, Inc., 456 Belmont Street, Watertown, Massachusetts 02172.

Current Literature

A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

The Art of Makeup for the Visually Handicapped, by Dorothy Pirozzi. The New York Association for the Blind (111 East 59th Street, New York, New York 10022), 1973, 24p. \$1.25. Large print booklet of helpful hints based upon the author's own experiences both as a blind woman and as a teacher of blind women.

Sound Localization; Suggested Activities for the Development of Sound Localization Skills, by Roy J. Brothers and Roger Huff. Instructional Materials Reference Center for Visually Handicapped Children, American Printing House for the Blind (1839 Frankfort Avenue, Louisville, Kentucky 40206), August 1972, 18p. Catalog #8-1606, \$1.00. A manual of activities and learning situations based on data supplied by the participants in the Sound Localization Institute held April 1972 in Louisville, Kentucky.

The Braille Embosser Terminal: Creating New Jobs for the Blind, by Louis H. Goldish. *Rehabilitation Record* (Social and Rehabilitation Services Administration, Washington, D.C. 20201), Vol. 14, No. 4, July-August 1973, p. 4-6. The author describes the braille embosser terminal as "the braille equivalent of the tele-typewriter, computer terminal and stock ticker." As embossers become available commercially they will open many additional employment fields to the blind.

Branch Begins Broadcasting - First in Pa. *The Seer* (Pennsylvania Association for the Blind, 2843 N. Front Street, Harrisburg, Pennsylvania), Vol. 44, No. 1, Spring 1973, p. 6-8. Special radio programs for the visually handicapped are now available to residents of the Lancaster County area in Pennsylvania. An adapted solid-state FM receiver (provided by the Lancaster County Branch of the Pennsylvania Association for the Blind) is needed to tune in the sub-channel broadcasts.

Current Trend of Tactile Image Perception. *The Seer* (see address above), Vol. 44, No. 1, Spring 1973, p. 12-14. Brief description of the experimental device that applies a pattern of electronic pulses to the skin of the abdomen through electrodes mounted in a waistband.

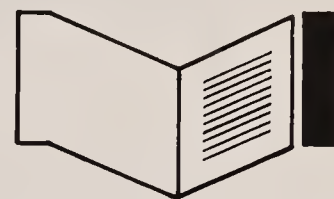
Liberating the Blind Student, by Steve Hulse. *American Education* (Available from Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402), Vol. 9, No. 6, July 1973, p. 18-22. 50¢ The subtitle reads "a Delaware program seems to demonstrate that with proper backup, the blind can advantageously join sighted pupils in the classroom." The Delaware system offers three educational alternatives: attendance at a residential school; enrollment in the Resource Teaching program; or attendance at regular school under the Itinerant Teacher program. The emphasis of the article is upon the last alternative. Further information is available from the Delaware State Department of Health and Social Ser-

vices, Bureau for the Visually Impaired, 305 W. Eighth Street, Wilmington, Delaware 19801.

Comparison of Levels of Fundamental Skill and Cardio-Respiratory Fitness of Blind, Deaf, and Non-Handicapped High School-Age Boys, by Samuel Case, Yvette Dawson, James Schartner and Dale Donaway. *Perceptual and Motor Skills* (Box 1441, Missoula, Montana 59801), Vol. 36, No. 3, Part 2, June 1973, p. 1291-1294. Selected stunts from the Iowa-Brace Motor Educability Test and the Ohio State University Step Test were administered to assess possible performance differences among deaf, blind and non-handicapped students. The object of the research was to secure data useful to the design of therapeutic physical education programs for blind and deaf children.

The Current Status of Visual Prostheses, by F. T. Hambrecht. *American Journal of Ophthalmology* (160 East Grand Avenue, Chicago, Illinois 60611), Vol. 76, No. 1, July 1973, p. 161-163. Very brief report on continuing experiments concerning electrical stimulation of the visual cortex.

20 Questions and Answers About Orientation and Mobility, by Robert C. Jaekle. *Blind Welfare* (The National Association for the Blind, Jehangir Wadia Building, 51, Mahatma Gandhi Road, Bombay -1, India), Vol. 15, No. 1, April 1973, p. 18-25. The author, who is Orientation and Mobility Consultant of the American Foundation for Overseas Blind, has been working in cooperation with the government in India.



Now you can teach a blind child to read print

Soon this blind child will be able to read ordinary children's books. One day he will be able to read novels, textbooks, sets of instructions, and his own name in a telephone directory. He is learning to use the Optacon, an electronic device that converts the visual images of letters into tactile forms he can feel. Right now he needs the help of a teacher who can assist him with the lessons and training aids. Later all he will need is the Optacon. Then he can read printed material independently whenever he wishes.



A NEW WORLD: When the first Optacons came off the production line in the fall of 1971, a new world was opened up for totally blind people. At hand was independent and immediate access to the world of print; not only books and magazines, but also correspondence, memos, labels, directories, electronic calculator displays, and many other sources of information usually closed off to blind people. Because the Optacon instantaneously converts printed images into tactile form, a whole new way of thinking about blindness was required.

IN THE CLASSROOM: Teachers and parents realized that the Optacon opened up new methods of educating blind children. Blind college students realized that they could study independently, without relying solely on special transcription or reader service. Vocational areas such as mathematics and foreign languages no longer presented major barriers to the blind student.

ON THE JOB: Adult blind people realized that the Optacon could help them find jobs where access to printed or confidential material was required. They found that the Optacon could make their own personal skills and abilities more competitive in a sighted world, that it could give them new freedom, independence, and privacy.

WHO CAN USE THE OPTACON? Normally, anyone with good tactile skills can learn to use the Optacon effectively. Braille

reading ability is a good indicator. Motivation and perseverance are also required to master this challenging but rewarding task.

HOW CAN YOU HELP? About 50 hours of formal, supervised training are required to reach independent reading ability with the Optacon. The first Optacon users had to travel to Palo Alto, California to attend a two-week training course. Today, training is being conducted at a number of agencies and schools throughout the U.S. and Europe. But there are still many blind individuals who could use the Optacon effectively to enrich their lives, but who are unable to travel to a distant city for training. You can help them by establishing an Optacon Training Center in your school or agency now. You would be making it possible for a blind child to read the same books his sighted friends read, and you might be making it possible for a blind person to get a job. Please write or call us at:



TELESENSORY SYSTEMS, INC.

2626 Hanover Street, Box D
Palo Alto, California 94304
(415) 493-2626

Brochures available in print or braille.

His paper was originally presented at a forum conducted at the Victoria Memorial School for the Blind in Bombay.

To the Sightless Too We Owe Gardens and Parks, by Bhanu L. Desai. *Blind Welfare* (see address above), Vol. 15, No. 1, April 1973, p. 12-17, illus. Article reprinted from the April-June 1970 issue of *Indian Horticulture*, published by the Indian Council of Agricultural Research in New Delhi. The author discusses how the sensations of hearing, touch, smell, and even taste,

should be considered in successfully designing a garden for the blind.

Arithmetic Computation Achievement of Visually Handicapped Students in Public Schools, by Roy J. Brothers. *Exceptional Children* (The Council for Exceptional Children, Jefferson Plaza Suite 900, 1411 S. Jefferson Davis Highway, Arlington, Virginia 22202), Vol. 39, No. 7, April 1973, p. 575-576. Brief report on a study to determine possible relationships between type

of computational device used and achievement level attained.

Visual Tracking in Deaf-Blind Retarded Preschool Children, by Dennis A. Silva, Marcia S. Knight and Bernard Z. Friedlander. *Exceptional Children* (see address above), Vol. 39, No. 7, April 1973, p. 574-575. Brief report on research to study the extent of functional connections between visual processing and body orientation in severely impaired deaf-blind children.

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind, prepared by the editors.

Agency Administration

Marketing in Nonprofit Organizations, by Ben Shapira. Marketing Science Institute; working paper (14 Story Street, Cambridge, Massachusetts 02138), 47p. This preliminary research report, published in 1972, details the results of a limited study which describes the nonprofit marketing function and attempts to develop a structure and taxonomy useful for analyzing it.

Aging

Attitudes of Adult Children Whose Aged Parents Are Members of a Sheltered Workshop, by Jacob Reingold, Robert L. Wolk, and Shirley Schwartz. *Aging and Human Development* (Greenwood Periodicals, 51 Riverside Avenue, Westport, Connecticut 06880), Vol. 3, No. 4, 1972, pp. 331-337. A questionnaire returned by the adult children of sheltered workshop participants showed that whereas the respondents viewed the therapy as favorable, their attitudes on the aging process appeared to be unaltered by their parents' participation.

Career Education

Getting a Jump on Career Choices, by Mary Kay Murphy. *American Education*, (U.S. Department of Health, Education and Welfare, U. S. Government Printing Office, Washington, D.C. 20402), Vol. 9, No. 5, June 1973, pp. 18-23. Teachers in the Cobb

County, Georgia system are working to integrate career awareness into the standard elementary school curriculum. Pupils are exposed to a variety of fields, and are provided opportunities to explore and develop career interests, beginning in the first grade.

Federal and State Benefits

Federal Benefits for Veterans and Dependents. Superintendent of Documents (Washington, D.C. 20420). 35p. 30 cents. This tenth and most recent edition of the booklet also covers veterans programs administered by other government agencies.

Pamphlets

Cataract: NEI Focus on Research. Office of Information, National Eye Institute, National Institutes of Health, Bethesda, Maryland 20014. Single copies of this booklet written for the general public are available free, upon request. It is available for sale in quantity by the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402 for 50 cents.

Seven fact sheets describing common visual conditions are also available free from the National Eye Institute. They are: **Glaucoma; Diabetic Retinopathy; Corneal Disease; Macular Degeneration; Refractive Errors; Retinal Detachment; and Retinitis Pigmentosa**. The pamphlets are for sale in quantity for 15 cents, by the Superintendent of Documents.

Research

Proceedings, 1972 Carnahan Conference on Electronic Prosthetics. The Office of Research and Engineering of the University of Kentucky (O.R.E.S. Publications,

College of Engineering, University of Kentucky, Lexington, Kentucky 40506), \$20.00. The proceedings, which include 28 papers presented during the conference, features a wide range of discussions related to the development of new devices and services for the handicapped.

Statistical Surveys

Administrators of Nursing and Personal Care Homes: Work Experience; United States, June-August 1969. National Center for Health Statistics, Health Services and Mental Health Administration, U.S. Public Health Service. *Vital and Health Statistics* (available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Series 12, No. 20, DHEW Publication No. (HSM) 73-1705, March 1973, iv + 45p. 75 cents. Data on the number of nursing and personal care home administrators by length of employment as administrator, hours worked, and services performed.

Ophthalmology Manpower: Characteristics of Clinical Practice United States-1968. National Center for Health Statistics, Health Services and Mental Health Administration, U.S. Public Health Service. *Vital and Health Statistics* (available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402), Series 14, No. 7, DHEW Publication No. (HSM) 73-1802, March, 1973, iv + 52p. 80 cents. Selected characteristics of the clinical practices of ophthalmology—the volume and nature of the clinical activity—described and evaluated.

OUT OF LEFT FIELD

A new film on the integration of blind and visually impaired youths with their sighted peers in community recreational and social activities. Color, SOF, 16mm, seven minutes.

Rental: \$1.50 per screening
(plus \$4.50 service charge)
Purchase: \$25.00

Film Library
Public Education Division
American Foundation for the
Blind, Inc.
15 West 16th Street
New York, N.Y. 10011

Classified Listings

Rates: Non-display—\$2.00 per line (minimum: \$10.00); Display—\$13.00 per column inch (minimum: one inch). Anonymous, box-numbered ads are only accepted for personnel listings. Advertising is subject to editorial approval. A rate and information card is available on request. All correspondence should be directed to the Classified Advertising Department, New Outlook for the Blind, 15 West 16th Street, New York, N.Y. 10011.

AIDS AND APPLIANCES

Instruments, Recreation Equipment. Complete catalog on request. Science for the Blind, Bala-Cynwyd, Pa. 19004.

Braille Watches. Made in Switzerland. Wide selection of standard and deluxe models. From \$19.95. Catalog in print or braille sent on request. Aids and Appliances Division, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011.

Aud-a-Ball. Sound-source recreation ball for the visually limited. Catch it, kick it, throw it. Locate it by sound. Science for the Blind, Bala-Cynwyd, Pa. 19004.

CATALOGS

Science for the Blind—Catalog on request—221 Rock Hill Road, Bala-Cynwyd, Pa. 19004.

International Catalog of Aids and Appliances for the Visually Impaired, edited by Leslie L. Clark. 224p. \$2.00. Publications Div., AFB, 15 W. 16th St., New York, N.Y. 10011.

ORGANIZATIONS

JOIN AEVH!

The Association for Education of the Visually Handicapped offers three publications, conferences at the national, regional, and local levels, and opportunities for communication with fellow professionals interested in the education of visually handicapped children. For information write AEVH, 1604 Spruce Street, Philadelphia, Pa. 19103.

A.A.W.B.

New services provided by the American Association of Workers for the Blind are outlined in the September 1973 issue of *News and Views*. For further information regarding membership in AAWB for professional growth and communication write to the AAWB, 1511 K Street, N.W., Suite 637, Washington, D.C. 20005.

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

Vocational Rehabilitation

Your Computer Is Smart but It Can't See.

Visually Impaired Data Processors International or NIDPI (Box 844, Evergreen Park, Illinois 60642). This seven-page brochure answers questions commonly asked by management and personnel, about the visually impaired programmer, and is suitable for inclusion with resumes. Copies are

available from VIDPI, and are 2 for 25¢; a minimum order of twelve copies per order is suggested.

Welfare

"Chichi" in Paradise: Helping Agencies and the Spanish-Speaking, by Hal M. Freeman, Lorenzo Avila, and Virginia Balderama. *Public Welfare* (American Public

Welfare Association, 1313 East 60th Street, Chicago, Illinois), vol. 31, No. 2, Spring 1973, pp. 40-47. Citing several instances of communications breakdown between social agencies and Spanish-speaking clients, the author suggests as a solution the recruitment of available, qualified Spanish-speaking personnel. This he says, would result in an improved image as well as in more effective services delivery.

In Brief

■ Mrs. Ranald H. Macdonald, founder and honorary chairman of Recording for the Blind, Inc., and Finis E. Davis, vice president and general manager of the American Printing House for the Blind, will receive the Migel Medals for outstanding service to blind persons October 25 at AFB headquarters in New York.

The medals established in 1937, in honor of the late M. C. Migel, first president of the AFB, are designed to recognize professionally employed practitioners in education, rehabilitation, and social welfare concerned with blind persons, and lay persons who have voluntarily dedicated themselves to advancing services for blind persons.

Mr. Davis is receiving the professional award and Mrs. Macdonald the layman award.

In 1948, moved by the plight of blinded veterans who were frustrated in their desire to finish their education, Mrs. Macdonald recruited a small group of women to record textbooks on dictating machines. Later she organized voluntary operations in communities across the country and today there are 4,000 trained volunteers working at a network of 27 professionally equipped Recording for the Blind studios in 15 states.

"Thanks to Mrs. Macdonald's foresight and unflagging drive, RFB has become a prime resource for thousands of blinded veterans, students, and professional persons who are now assured

of free access to the aural literature vitally needed in the pursuit of their educational and occupational goals," according to M. Robert Barnett, executive director of the Foundation.

"Mr. Davis' activities on behalf of blind persons has been so extensive as to almost preclude listing all of them," Mr. Barnett noted in making the announcement.

Previous to joining The American Printing House for the Blind, he was superintendent of the Arkansas School for the Blind. He is a past president of the American Association of Instructors for the Blind, (now the Association for the Education of the Visually Handicapped), and past member of the governing boards of the American Association of Workers for the Blind and the International Council for the Education of Blind Youth.

He has been extremely active in Lions International, including serving as international president of the group. "In his Lions activities, he carried the message of the needs and abilities of blind persons to an interested and active group of men and women around the world," Mr. Barnett noted.

Among his various awards is the Robert B. Irwin Memorial Award of the National Industries of the Blind.

■ Selections from the *New York Times* In Review are again available on 10 inch, 16

2/3 RPM discs. For information about subscribing, write National Braille Press, Inc., 88 St. Stephen Street, Massachusetts 02115.

■ The Council for Exceptional Children's Information Center announced that the separate reprint and distribution of "ERIC Excerpt" has been discontinued. Regular columns from the Information Center will continue in *Exceptional Children*, and announcements of new Information Center products will continue to appear in *Exceptional Children*, *TEACHING Exceptional Children*, and *Education and Training of the Mentally Retarded*.

■ A researcher at Johns Hopkins University, Dr. Stephen J. Ryan, Jr., has been awarded a special \$25,000 grant by Research to Prevent Blindness, Inc. to accelerate his pioneering studies of macular degeneration. Dr. Ryan, assistant professor of ophthalmology at the University's School of Medicine, is the third young scientist to be named an RPB-Louis B. Mayer Scholar in the past three years; those named are given special incentive to carry on specific research with unusual promise for saving sight.

■ A "Model State Use Law" has been drafted, through the joint efforts of the National Industries for the Blinds' Carl Olsen, and Irvin Schloss of the American Foundation for the Blind. Workshops in several states have introduced state use



laws, and legislative actions appear favorable. Several other workshops have requested Olsen's assistance in the introduction of state use laws. Other interested workshops are encouraged to write for copies and for more workshop information, to Carl Olsen, care of National Industries for the Blind, 1455 Broad Street, Bloomfield, New Jersey 07003.

■ Reprints from *The Exceptional Parent* are available from Closer Look Mailing List, Box 1492, Washington, D.C. 20013

■ Salary levels for positions in voluntary social and health agencies in New York City increased at a lesser rate during the period 1970-1972 than during the preceding two year period, 1968-1970. Moreover, the increase in the cost of living consumed much of the 1970-1972 gains. These are the findings published in the most recent edition of *Salaries and Related Personnel Practices in Voluntary Social and Health Agencies in New York City, September 1972*, which was released by the Community Council in mid-June of this year. The report presents tables and an analysis of salary levels and hiring rates for positions in 168 voluntary agencies in the City, and also gives comparative figures for similar positions in New York City municipal agencies. Copies of the report are available at \$5.00 each, from the Publications Department, Community Council of Greater New York, 225 Park Avenue South, New York, New York 10003.

■ "Nonwhite women may be as much as three times more vulnerable to blindness from diabetic retinopathy, than either white women or men of any race." This finding comes from an analysis of statistics on registered blind persons in 16 states compiled by the National Eye Institute. The study also shows that blindness rates in general are higher in these states among nonwhites than whites. Glaucoma which accounts for the greatest difference, is eight times more prevalent among the nonwhite population. Another significant finding revealed by the study is that the only sizeable male-female difference observed for both whites and nonwhites is the increased risk of blindness due to optic nerve disease for males. Single copies of the publication, *Statistics on Blindness in*

the Model Reporting Area, 1969-1970, are available free from the office of Information, National Eye Institute, National Institutes of Health, Bethesda, Maryland 20014.

■ The Xavier Society for the Blind has announced the availability of its latest large type catalog. Listing in this revised edition range from religious subjects to those of a general nature, and include titles of interest to the young reader as well as to the older adult. In addition to the catalog, the Society announced the publication of a new, large type monthly which contains a selection of articles reprinted from Catholic newspapers and periodicals. Both publications are free. To obtain copies and more information, write Xavier Society for the Blind, 154 East 23rd Street, New York, New York 10010.

■ An interdenominational Christian magazine, *Evangelical Message*, is available free, upon request. To receive a copy, and for more information about the magazine write Rev. Adelaide E. Wink, Evangelical Message Interdenominational, 61 South Lee Street, Beverly Hills, Florida 32661.

Appointments

■ Upsal Day Care School for Blind Children, Philadelphia: **Guru P. Sharma**, director.

■ The New York Association for the Blind, New York City: **Mrs. Arlene R. Gordon**, associate executive director of program services.

■ National Industries for the Blind, Bloomfield, New Jersey: **Edward R. Lanser**, manager of quality assurance.

Awards

■ National Industries for the Blind, R.B. Irwin Award: **Jeri Rougagnac**, executive director, Houston Lighthouse for the Blind.

■ National Industries for the Blind, "Blind Worker of the year:" **Angelo Castogna**, New York Association for the Blind.

■ University of Arkansas, honorary LLD: **Roy Kumpe**, executive director, Arkansas Enterprises for the Blind.

Coming Events

October 13-16, American Association of Homes for the Aging, 12th Annual Meeting and Conference, Washington, D.C.

October 15, White Cane Safety Day

October 22-26, National Rehabilitation Training Institute, Annual Meeting, Miami Beach, Florida.

October 25, American Foundation for the Blind, Foundation Day, New York City.

October 26-28, *Dialogue Magazine*, Writer's Seminar for Blind Persons, Oak Park, Illinois.

October 29-31, National Rehabilitation Association, National Conference, Atlantic City, New Jersey.

November 4-8, American Public Health Association, 101st Annual Meeting, San Francisco.

November 5-9, Gerontological Society, with the American Geriatrics Society, 26th Annual Scientific Meeting (Theme: "The Contribution of Gerontology to the Improvement of the Quality of Life"), Miami Beach, Florida.

November 7-10, National Association for the Education of Young Children, Seattle.

November 9-10, New York Association for the Blind, Seminar on Low Vision, New York City.

November 16-20, Association of Schools of Allied Health Professions, Boston.

November 27-December 1, National Easter Seal Society, Annual Convention, Washington, D.C.

December 4-7, Council for Exceptional Children, Northeast Regional Conference, Boston, Massachusetts.

December 7-9, Association for Advancement of Behavior Therapy, Seventh Annual International Convention, Miami Beach, Florida.

1974

January 28-February 1, Council on Social Work Education, Atlanta.

April 14-19, Council for Exceptional Children, 52nd Annual International Convention, New York City.

May 19-24, National Conference on Social Welfare, Cincinnati.

May 24-25, International Association for the Prevention of Blindness, Conference on the Prevention of Impaired Vision and Blindness, Paris.

AFB Offprint Series

From the **New Outlook for the Blind:**

- 1. **Aging and Blindness: A Public Symposium.** Six articles, 19 pages, 30 cents.
- 2. **Auditory Maps: An Orientation Aid for Visually Handicapped Persons,** by Bruce B. Blasch, Richard L. Welsh, and Terry Davidson. 14 pages, 20 cents.
- 3. **The Blind in the Age of Technology: A Public Discussion** (with six outstanding participants). 18 pages, 30 cents.
- 4. **Braille Bookkeeping,** by Wallace R. Arms. Five pages, 15 cents.
- 5. **CCTV Reading Systems.** Two articles and a supplementary bibliography and list of sources. 15 pages, 25 cents.
- 6. **Child Rearing by Blind Parents.** Three articles. 19 pages, 30 cents.
- 7. **Counseling Families of Severely Visually Handicapped Children,** by Helen E. Froyd. Five pages, 15 cents.
- 8. **The Current Status of Services for Deaf-Blind Persons,** by Robert Dantona and Peter J. Salmon. Six pages, 15 cents.
- 9. **Optical Aids: An Interdisciplinary Prescription,** by Randall Thomas Jose and Donald Springer. Seven pages, 15 cents.

- 10. **The Response of Individuals Beginning Work With Blind Persons,** by Allan L. Ward. Five pages, 15 cents.
- 11. **Sensory Stimulation: Two Papers,** by Robert H. Carolan. 12 pages, 20 cents.
- 12. **The Severely Visually Impaired Population as a Market for Sensory Aids and Services: Part One,** by Louis H. Goldish. Eight pages, 15 cents.
- 13. **Storytelling and the Blind Child,** by Jean D. Brown. Five pages, 15 cents.
- 14. **Time, Money, and Students With Visual Limitations,** by Glenn Leavitt (on study techniques). Five pages, 15 cents.
- 15. **The Use of Aluminum Sheets in Producing Tactual Maps for Blind Persons,** by Roger W. Craven. Eight pages, 15 cents.
- 16. **When You Meet a Blind Person,** by William Goodman. Seven pages, 15 cents.

From the **AFB Research Bulletin:**

- 1RB. **The Blind Child and His Parents: Congenital Visual Defect and the Repercussion of Family Attitudes on the Early Development of the Child,** by G.C. Lairy and A. Harrison-Covello. 24 pages, 30 cents.

Order from: **Publications Division, American Foundation for the Blind,
15 West Sixteenth Street, New York, New York 10011.**

(Discounts are available on orders for 50 or more copies of any one title.)

Please send the following AFB Offprints to:

No.	Item	Amount	No.	Item	Amount
_____	1 @ 30¢	_____	_____	9 @ 15¢	_____
_____	2 @ 20¢	_____	_____	10 @ 15¢	_____
_____	3 @ 30¢	_____	_____	11 @ 20¢	_____
_____	4 @ 15¢	_____	_____	12 @ 15¢	_____
_____	5 @ 25¢	_____	_____	13 @ 15¢	_____
_____	6 @ 30¢	_____	_____	14 @ 15¢	_____
_____	7 @ 15¢	_____	_____	15 @ 15¢	_____
_____	8 @ 15¢	_____	_____	16 @ 15¢	_____
_____	1RB @ 30¢	_____			

_____ name

_____ organization

_____ address

_____ city _____ state _____ zip

Total Enclosed \$ _____

To be billed ☐ Payment must accompany all orders totaling \$6.00 or less.

New From AFB

Concept Development for Visually Handicapped Children

**A Resource Guide for Teachers and Other Professionals
Working in Educational Settings**

William T. Lydon and M. Loretta McGraw

Concept Development for Visually Handicapped Children discusses the importance of proper concept development and the problems blind children encounter as a result of poor concept development.

The authors, instructors in orientation and mobility, offer guidelines for working with the blind child, with a special chapter devoted to the multiply handicapped blind child.

The book includes material on how to help the child develop accurate concepts of body image and spatial orientation, so that he can achieve effective motor behavior and learn to relate to others and to his environment.

It explains what the child must know regarding the parts of his body and how they function and what he must be able to do physically. The book also includes specific teaching methods and suggested activities and exercises.

Contents

- The Importance of Concept Development
 - How the Sighted Child Develops Concepts
 - Concept Development and the Blind Child
 - Spatial Awareness
 - Alleviating the Problem
- The Multiply Handicapped Blind Child
 - Developmental Patterns of the Multiply Handicapped Blind Child
 - Individual Needs and Classroom Instruction
- Conceptual Development
 - Body Image
 - Gross Motor Movement
 - Posture
 - Suggestions for a Posture Program
 - Tactual Discrimination
 - Sound
 - Olfactory
 - Time—Distance
- Orientation and Mobility Terms
- Body Image of Blind Children, Screening Test
- Basic Mobility Skills and Techniques
- Room Orientation
- Bibliography
- Selected Reading

February 1973 ☐ Revised Edition ☐ vi + 69p. ☐ \$2.00

Payment must accompany all orders totalling \$6.00 or less.

Order from:

**Publications Division, American Foundation for the Blind,
15 West Sixteenth Street, New York, New York 10011.**

THE NEW **Outlook** FOR THE BLIND

SPECIAL SECTION

VOLUNTARY AGENCIES

New Rules?

New Responsibilities?

New Problems?

THE NEW Outlook FOR THE BLIND

November 1973 Volume 67 Number 9

Articles

- 385 Voluntary Agencies: New Roles?
New Responsibilities? New Problems?
- 385 Voluntary Agencies: A New Look
Benjamin Wolf, A.C.S.W.
- 389 The Accountability of Nonprofit Institutions
in a Free Society
Owen R. Davison
- 396 Shoals and Storms Ahead? Funding Trends
H.H. Urrows
- 407 Sensory Aids for Blind Persons
Forrest M. Mims
- 415 Toward Involving the Total Community
in Career Education
Robert J. Weishan

Departments

- 425 Review—*The Visually Handicapped Child in School*
- 427 Comment—Harold D. Cardwell, Sr.
- 429 Current Literature
- 432 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to \$4.00 according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief
M. Robert Barnett

Executive Editor
Patricia Scherf Smith

Managing Editor
Mary Ellen Mulholland

Associate Editor
Michael E. Monbeck

Assistant Editor
Freida Chapman

Advertising Director
Michael E. Monbeck

Voluntary Agencies: New Roles? New Responsibilities? New Problems?

The first three articles in this issue are tied together because they each point up some of the new responsibilities, roles, and problems facing agencies, especially voluntary, serving blind and visually impaired persons. The altered patterns of funding, the changing attitudes governing bodies toward accountability, and the shifting economy all create new challenges and problems for agency executives and boards. We hope that these articles will be of help in analyzing current and future trends so that they may be taken into account in planning future services. Eds.

Voluntary Agencies: A New Look

ABSTRACT: Voluntary agencies in the future will face new responsibilities. Two fundamental changes that have already begun to occur are the reordering of priorities in the federal program of income maintenance for handicapped persons and the availability of a more accurate picture of the actual composition of the blind population of the United States. The changing role of the federal government, and state governments too, means that the services of private agencies must be re-examined and updated to insure that all necessary services continue to be provided. The recognition that the majority of blind persons are in the older age category and that there are very great numbers of persons with very limited, but still useful, vision means, in the first case, that independent living is not the only goal that clients need help in achieving and, in the second, that new approaches to helping partially sighted persons need to be developed and implemented. Finally, as an outcome of these and other changes, agencies for the blind must expand the ways in which they can work cooperatively with private and governmental agencies and the ways in which volunteers can be utilized most efficiently.

A new era, with intensified and somewhat altered responsibilities, is emerging for voluntary agencies. For those agencies serving blind and visually impaired persons there are two fundamental changes in the offing which will inevitably affect their efforts. One is the reordering of the federal management and ad-

BENJAMIN WOLF, A.C.S.W.

Mr. Wolf, based in San Francisco, is regional consultant for the western United States and Guam with the American Foundation for the Blind.

A New Era

ministration of basic financial maintenance for the nation's handicapped population. The other is the evolving understanding on the part of agencies as to what constitutes the blind population in the United States.

As is generally known, the federal government will, on January 1, 1974, assume direct responsibility for providing financial maintenance to indigent blind, aged, and severely handicapped persons. Administration of the program will be vested in local offices of the Social Security Administration. Once eligibility has been established, maintenance allowances will be administered in much the same manner as payments made to social security recipients.

□ Developing hand in hand with this change in the administration of maintenance assistance is an emerging pattern in many states: departments designed to provide social services to handicapped persons are being combined into single conglomerates, so that individuals with differing handicaps are likely to be provided undifferentiated services. While all of this adds up to the fact that the aged, the blind, and the otherwise handicapped will be removed from vocational rehabilitative groupings in which they really do not belong, it also means that public funding for those services which add to the dignity of human beings and to the quality of life will either be drastically curtailed or become altogether non-existent.

Now for the emerging understanding about the constituency of the blind population: until the recent past, agencies for the blind tailored their services, and their public relations thrust, to the basic conviction that blind persons were like everyone else, with the same motivations for independence and self-reliance and the same potential for fitting into the mainstream of community life. Indeed, the last decade or two has witnessed remarkable achievements on the part of agencies to provide services which helped blind persons to develop those skills which are necessary for enhancing independence and, in fact, for fitting into our work-oriented society.

□ This is not to say that the battle has been completely won, or that agencies can now relax their attention in this area of service. But an assessment of the blind population in the United States indicates that substantial segments of it require services of a quite different nature than those leading to self-asserting independence or preparation for the world of work. For not only have we come to realize that the majority of blind and visually impaired persons are in the older age category, but that upcoming generations of blind children, for a variety of reasons which cannot be elaborated upon here, have complicating physical conditions in addition to a limitation of vision.

In a quite different area, the emerging understanding about the blind population points up the reality that a substantial number of persons considered blind have varying degrees and quality of sight, and that services developed during these past years for enhancing the adjustment potentials of totally blind people do not necessarily apply to those with limited vision.

□ What does all of this portend for voluntary agencies serving blind and visually impaired persons? In a basic sense it means that, in addition to sustaining the assumption of independence potentials, agencies serving blind and visually impaired persons must now accept the equal reality that independence

The federal government

Emerging Pattern

The past

A New Assessment

Limited vision

An Equal Reality

is not the ultimate goal for many blind persons and that they must consequently refine their skills for serving this segment of the population.

With the federal government administering maintenance assistance on a fixed level, it is quite likely that in the industrialized states, where cost of living indices are high, that the income for many older and multiply handicapped visually impaired persons will be insufficient to sustain even the ordinary decencies of existence. In such instances, it will become incumbent on agencies serving the blind to take on persistent and, in fact, aggressive responsibility for assuring that adequate supplementation is assured.

☐ This is no easy task. Knowledge will need to be accumulated, albeit sometimes painfully, about a multiplicity of realities which agencies for the blind have all too often evaded: knowledge of resources, community power relationships, legislative interests, social action methods, and through it all, how to collaborate with other groupings to achieve common objectives.

Agencies will need to learn in depth how and where to tap revenue sharing funds, United Way resources, other voluntary funds, local and state tax monies, and how to expand their own fund raising potentials.

☐ The revisions in federal and state funding and programming is a clear indication that social services are being returned to the "private sector" of our society. The impact this will have on voluntary agencies is abundantly clear. The fact that tax funds are being diminished or that public programs are being revised will in no way diminish the needs or the right of handicapped persons to obtain the ordinary living requirements that sustain human dignity.

Agencies for the blind, in addition to serving as advocates for low-income blind persons to assure a decent income, will also need to take on responsibilities for assuring a number of basic necessities. Decent housing must be available. Adequate health facilities and medical care, especially for older persons with disabilities, are necessities. For many multiply handicapped persons, services leading to independence is a mirage, whereas the need for supportive custodial care may be inescapable. Counselling services to handicapped persons and to their families is often as much of a necessity as are the other requirements for human existence.

☐ All of these concerns will need to be an increased responsibility for voluntary agencies that serve blind persons. In some instances they will need to build into their own programs the actual services for meeting human needs, in others they will need to assure that other community resources are used effectively for the benefit of their constituency. In all instances, agencies for the blind will need to sharpen their skills to collaborate with others and coordinate their efforts to see that the necessary resources to meet human needs are available for visually impaired individuals as well as for all the disadvantaged.

☐ Another area requiring redirection of effort deals with that large part of the visually impaired population who have some usable vision. To a large extent, agencies for the blind have been concentrating on the development of skills which utilize the other senses as substitutes for vision. Efforts in this area must, of course, never be neglected for those persons who must, of necessity, rely exclusively on their other senses. But, for these who do have usable vision,

Cost of living

Painful Knowledge

The "Private Sector"

Increased Responsibility

The Visually Impaired

agencies will need to enhance their efforts and expand their skills to serve such persons effectively. We have now come to understand that whatever sight a person has should be used. In addition, recent years have witnessed a remarkable development of a variety of aids, including large print materials and reading devices, to help persons with limited vision to use it more effectively. There have been developments in the use of physical exercises to enhance vision. There are also increasing insights as to how even very limited vision can increase the perceptive potentials of individuals.

Aids

How to capitalize on these developments will be an increasing responsibility for agencies serving visually impaired persons. In some instances agencies will find it necessary to develop low vision services within the framework of their programs; in other cases it will mean expanding understandings about other resources in the community and how to use them. But always it will be important to collaborate with other specialties, including ophthalmologists and optometrists, in assuring the availability of whatever specific services are needed.

Low vision services

□ Finally, there needs to be a reappraisal of how volunteers can be used in stepping up services to those who seek assistance from agencies for the blind. The matter of the use of volunteers is particularly cogent in view of the fact that there has recently developed what seems to be a national thrust to increase the use of volunteers in the provision of social services ostensibly to replace professionals. Voluntary agencies including those who serve visually impaired persons need to be wary of this developing trend.

Volunteers

The use of volunteers in the provision of services is by no means a new concept. The services of volunteers always have been an indispensable component to a full complex of services for persons in distress. But there are certain services, especially for blind and visually impaired persons, that rely for their successful delivery on an accumulated body of knowledge and structurally defined techniques. Mobility instruction is, by now, a serious professional discipline. So is the teaching of communication skills and daily living skills. So is meaningful counselling, whether supportive or for the purposes of modification of behavior. In fact, so are the skills entailed in the administration and delivery of services of any agency that merits community support. The sum and substance of the issue is that volunteer services are of most use when they are provided within the context of a professionally oriented program.

Professional disciplines

□ Voluntary agencies facing the future, then, must renew a certain enduring quality while at the same time enlarge their horizons to accommodate themselves to the changing times. Tailoring services to meet the unique requirements of each human being is the enduring quality. In order to sustain this quality, agencies for the blind will need to sharpen their skills to provide a supportive, indeed a custodial, service where necessary, while at the same time continuing unrelentingly to provide rehabilitative services for those striving for independence and self-reliance. Agencies will need to continue to serve blind persons whose requirements call for a life style bereft of any sight, and at the same time assist those who have some usable sight to use it more effectively. All of this can only be accomplished by an inextricable but well-defined combination of volunteer and professional partners.

Summary

The Accountability of Nonprofit Institutions in a Free Society

ABSTRACT: During the last decade, there has been an increasing demand from the government, clients, certifying bodies, and the contributing public for human service agencies to provide full information about their finances, operation, and services. For such accountability to be both accurate and meaningful, the agency must be organized along sound administrative and managerial lines and must operate according to the standards established within each operational area (accounting, fund-raising, public relations, etc.). The credibility, and thus the survival, of the agency is at stake. In addition, the ability of the agency to improve its services is enhanced by the constant internal monitoring and evaluation that must be carried out if an agency is seeking to be truly accountable.

The July 13, 1973, issue of the Pittsburgh *Post-Gazette* carried this headline: "Solicitation Firm Kept 70% of FOP Donations, Probe Panel Reports."

A large medical institution is called in by the Internal Revenue Service for using employee tax withholding to pay its bills.

A charitable foundation drops support and threatens suit against a nonprofit agency for using foundation funds for other than the designated purposes of the grant.

A 1972 exposé by the Sun Newspapers of Omaha revealed that the prestigious Father Flanagan's Boys Town mailed an estimated 33 million letters for contributions in 1971. "Boys Town has more money than it know what to do with. . . . Boys Town has a money machine that brings in some \$25 million a year from public donations and investment income . . . more than four times as much as it spends to take good care of its boys."

An agency executive is fired by his board because he was unable to account for the performance of his agency on the specifications of a government contract.

An agency is forced out of business when it incurs large debts due to failure to maintain an adequate system of internal financial and budgetary controls.

☐ Had these institutions been operating under the kinds of standards recommended in the *Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Organizations* (1964), those of the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped (1966), *The Standards of Excellence for Local United Way Organizations* (1973), or those of the National Information Bureau, these situations might not have occurred.

This article is based on a speech Mr. Davison gave at a meeting of Interest Group 1 of the American Association of Workers for the Blind, July 24, 1973, in Cleveland.

OWEN R. DAVISON

Mr. Davison is consultant to funds and councils, Community Services of Pennsylvania, Harrisburg.

Suit brought against nonprofit agency

Recommended Standards Ignored

These are dramatic and atypical examples of what happens from time to time among institutions operating in the public purview and presumably for the public good. While relatively few nonprofit institutions have faced situations as damaging as the instances cited, the human service field as a whole does have compelling problems involving the management of their operations and the maintenance of public confidence. If we do nothing about them, such problems over a period of time can erode our effectiveness and threaten our future as community instruments for the good. No institution will ever attain the performance ideal. The question is whether we have a commitment to work toward it, standards which will guide us in the right direction, and a readiness to provide full accountability on our performance to the public which supports us.

Stated another way, human service institutions have tremendous opportunities to recapture what some people say we are losing—a renewal of the public faith, a sharper statement of our objectives, a hard commitment to progress, and an effective management of the implementation. If we believe that herein lies our future, then the future is now, and we had better make the most of it.

Let's look at nonprofit agencies, recognizing that governmental institutions are subject to the same principles of accountability, but operate through somewhat different channels and structures.

William Freitag (1973), partner in the national accounting firm of Peat, Marwick, Mitchell and Company and an expert in the field of accounting for nonprofit institutions, has stated the following:

The nonprofit institution seems to be reaching a stage of fullest maturity. No longer the child showered with favors whose wants are indulged without question, it is being asked to account for its activities and to assume a responsibility to society for the efficiency of its operations, just as it has always exhibited a responsibility to society arising from its basic concern with social needs. . . . The governing boards of these institutions can no longer feel that their responsibilities pertain solely to the ultimate goal of service to humanity. These responsibilities entail the fullest attention to the quality and effectiveness of management and its impact on the economics of the operation. Severe pressures are being brought to bear on such boards. . . . Mere survival requires that the boards assure themselves that their management is of the highest quality, knowledgeable and fully aware of the special requirements that pertain to the individual organization.

What is being lost?

Survival

If Mr. Freitag is correct in his assumptions, and I think he is, then nonprofit institutions are in a period where we must deliver on the question of whether we are doing an effective job in fulfilling the mission we say we have. It is not merely a matter of superficial public relations. Our public relations rests four-square on the strength of what we produce and how we produce it, and whether we tell it as it is. This then is a survival question, not necessarily for today or tomorrow, but over the period of time where the commitment of our publics can gradually slip away, perhaps without full consciousness on our part that it is happening until it is too late.

☐ We must be accountable! Why? Because nonprofit institutions are public institutions. They are public because:

Why Must We Be Accountable?

1. We operate under charters, usually granted by a state government, and

this in itself implies that we were approved for a charter because we met some kind of standard-setting criteria.

2. We have certain tax exemptions, from sales tax and real estate taxes, and most important, the tax deductibility of contributions under the federal income tax law.

3. In many state and local governments, we must receive approval to solicit contributions from the public.

4. We receive bequests designated for specific purposes that are ultimately supervised by the courts in terms of whether we carry out the purposes for which the money was left.

5. We solicit grants from charitable foundations, which have certain obligations under the law and are receiving ever closer scrutiny by committees of the Congress and Internal Revenue Service.

6. We contract with government for project grants and purchase of service arrangements and are accountable for the use of these funds.

We are by no means completely free agents.

There is a matter of ethical position mixed into the accountability question as well. Our human service institutions, as much as any segment of American life, should go the ultimate mile to insure that we are above reproach, in both thought and deed. Many years ago, as a young and relatively inexperienced executive, I was tempted to compromise a principle of my organization because of a money "carrot" dangled before us which would have solved some of our financial problems. One of my volunteer leaders, the president of a large national corporation, brought me up short. Not before and not since have I received such a totally devastating barrage. He summed it up this way: "Don't ever forget again, Owen, that this organization, above all others, must live publicly and privately by the way we do business." I have never forgotten this very rough and very right lesson in accountability and organizational ethics.

The quality of our management has a more significant bearing upon an agency's self-interest today than anytime in memory.

I have been associated with both governmental and nonprofit institutions most of my working life. I have had intimate exposure to the thoughts, views, reactions, and concerns of thousands of citizen leaders. There was a time when many of our business and professional volunteers tended to look at human service agencies as somehow different from their own business experience in terms of acceptable quality of management. Some of us helped foster this attitude by proclaiming that we were indeed different and that you just could not apply so-called "business principles" to the management of human service institutions.

It is true that we do indeed have some differences from business. For example, we are not out to make a profit in the same sense as business. But in many respects we are no different than profit-making institutions in the need to apply sound management principles to our operations. We have a product—"service"; we have markets—"those who use our services" and those who "support us financially"; and we operate under certain kinds of governmental constraints, just as business does under such mechanisms as the Securities and

Nonprofit institutions are public institutions

Ethics

The application of sound management principles

Exchange Commission, Federal Trade Commission, Interstate Commerce Commission, etc., and the banking and insurance laws of each state.

Today the public—the citizen leaders—are sensitive to the questions of whether we are producing effectively under sound management systems. I hear businessmen asking questions about nonprofit agencies that never occurred to them in the past. They are looking at us more analytically, assessing us as they do their own businesses, and they do not always like what they see.

The mere fact that an agency was founded 100 years ago and has had a glorious history is not as important as it once was. We are looked at critically and when we are found wanting, we are not always excused because "that's the way a nonprofit agency has to be." Good volunteer leaders are more discriminating in what they are willing to lend their names and talents to. And when they find themselves on a board where they have little opportunity for significant contribution, or where they feel that there are major deficiencies, they either get off or they dig in and push for improvement or they drop or reduce their giving.

This is good. It is what volunteer leaders should do. But it also creates discomfort for those professionals who have continued to operate under the impression that if our service purpose was good, that was good enough. It is indeed a new era for nonprofit institutions, and those volunteers who take a well-reasoned but tough stance to push us to do better may well be helping insure our productive survival.

□ The era of the sixties brought a 90-degree turn in the way those who use our services began to hold us accountable and to demand a voice in our operational decisions. While the seventies have brought some cooling of the turbulent consumer climate, consumers of service must increasingly be a significant influence on the way both nonprofit and government institutions conduct their business. Those of us who have responsibility for the management of services must foster such involvement. Just as the know-how from the business community can advance our management skills, so can consumer experience be applied to advancing the efficacy of our services.

Consumers are one of our most significant publics. They are our only reason for being. They have a right to demand our accountability. An agency's self-interest is best fulfilled when our actions provide solid evidence that we are what we say we are.

The nature of our capabilities and accountability as nonprofit agencies is nowhere more apparent than in our relationships with government at all levels. We have already noted the nature of constraints imposed on us by government by virtue of law.

Self-interest in the maintenance of our voluntary human services demands that we be sufficiently sophisticated in our management systems both to meet required standards of government as well as to be able to take advantage of the opportunities open to us for selling our services to government.

At the federal level, we have seen in recent years the emergence of a philosophy for tighter monitoring and evaluation. In the Department of Health, Education, and Welfare, under the provisions of the Social Security amend-

Producing effectively

A critical look

Discomfort for professionals

A 90-Degree Turn

Consumer influence increasing

Tighter federal monitoring

ments in the sixties, the so-called "75/25 social service purchased" programs have been undergoing hard scrutiny; federal regulations are directed toward greater emphasis on the ability of an agency selling its services to provide "proof" on the quality and quantity of the product delivered, and solid accounting evidence of its unit costs. Since much federal funding comes to agencies via state and local government, this obviously applies to many state and local government contracts. The ability of nonprofit institutions to contract with government for reimbursement for services rendered is tied closely to the ability of the agency to provide a tight accounting, service reporting, and management system.

Proof required

There are many instances of agencies which could not secure available funds through government contracts because their management capability was too limited to meet the requirements. There are other instances where agencies have had contracts, but cheated themselves from securing full cost-return simply because their internal accounting was too limited to make the case for adequate reimbursement. Some have not even known they were failing to get their costs.

Failure to secure available funds

Thus, management's ability to provide effective accountability directly affects the self-interest of many organizations which depend upon government resources to pay an appropriate part of the bill.

Charitable solicitations commissions have been mentioned. In Pennsylvania, our state commission is getting ready for a much more intensive job of evaluating organizations that raise funds through public solicitation. The agency, for example, that does not maintain a functional accounting system based upon the national *Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Agencies* will be at a disadvantage, as it may pay a higher annual registration fee as a result and is more likely to be subject to questions about its operations.

Public solicitation

So self-interest in survival is increasingly important. Of course, little of this speaks to the most important self-interest of all, which is that of using a better management system to help the agency be more accountable to itself and hence to serve the community at maximum potential.

Self-interest

□ A landmark in the field of services for the blind was, of course, *The Comstac Report* (Commission on Standards and Accreditation of Services for the Blind) published in 1966. From this effort came the establishment of the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped (NAC), which has moved forward in its relatively brief existence to a leadership role in the standard-setting field. It has received increasing recognition at the federal level and from leaders not only in the field of services to the blind but from many other segments of the health and welfare industry as well.

NAC

The National Accreditation Council process is designed to accomplish several things as I view it. Among the benefits to be realized are:

1. Stimulate agencies to undertake self-study which, when conscientiously pursued and implemented, will enhance their ability to achieve improved performance.

2. Encourage the field to "look outward" as well as inward at its relationships with other community groups, thus helping to insure that services to

blind persons are a significant and integrated part of the entire human service system.

3. Enhance the credibility and image of the field by the accreditation process and its implications for public accountability.

It must be recognized that the NAC standards are not absolutes either in the manner by which a given institution can be assessed or in terms of a required 100 percent track record. Many standards have to be assessed on the basis of a combination of objective facts and experienced value of judgments.

The NAC administrative standards on "Financial Accounting and Service Reporting" and "Public Relations and Fundraising," which I would like to touch upon briefly here, have significant content for accountability and credibility of agencies and ultimately for an agency's ability to survive in the increasingly complex constraints under which we must operate.

An agency delivers services by using dollars to finance the resources needed. It gets those dollars when providers of dollars—givers, foundations, government—are convinced that the agency knows how to safeguard financial assets and convert money into effective service (e.g., a cost-benefit system). The standards in this chapter are directed exactly to these ends. They provide direction for:

1. *Accounting.* Here are described the major elements needed in an *accounting* system for the receipt, expenditure, and reporting of funds handled. This is the formulation upon which adequate financial administration and planning is based. At the heart of the system is functional accounting. Without it, there can be no real understanding of cost-benefits, no integrated translation of dollars to services, and therefore something less than solid accountability to our publics. The new approaches of PPBS sprout from the seed of functional accounting. You cannot get unit costs without it.

2. *Safeguards and controls.* These standards are designed to establish a protective level against malfeasance, misfeasance, and non-feasance, and are similar to that followed in business and industry.

3. *Budgets.* Budgets are blueprints of what we are authorized to do and a guide to what we expect to do in the period ahead. They are a control and they can be used as one measure of the degree of our accountability to our board and our givers and on our project accounts.

4. *Service Reporting.* Here the standards attempt to give direction to the counting of what we do and to relate such counts to dollars spent for categories of service. Again, the availability of cost per unit of service rests upon our ability to count and compare.

5. *Public Accountability and Disclosure.* These are the guidelines by which we meet the requirements of credibility, based upon a system which produces adequate information. When an agency does not make available to the public an annual report showing volume and cost of service rendered, the *total revenue, expenditures, and assets* as required in these standards, that agency's financial credibility may be at stake, especially as more and more contributors and certifying agencies look for the full disclosure of significant financial facts. These standards do tie directly to the "above reproach" principle.

"Financial Accounting and Service Reporting"

Functional accounting

Public accountability

In much the same way, the standards for public relations and fundraising strike at the heart of accountability. Our public relations can be designed to further our accountability and, by honest communication, enhance our credibility to our publics. In the standards for public relations, our accountability, our ethics, and the confidentiality of our services are important tenets. Perhaps the most important "feel" of these standards is that public relations is clearly not just a specialized department of the agency, but a part of the blood stream of board, staff, constituents, and consumers.

Fundraising, too, gets into the issues of ethics, confidentiality, and method. The standards are designed to help an agency think through the way it raises its money and the responsibility it should carry toward the giving public, its users of service, and, most of all, to its own purposes and goals. Both method and cost of fundraising are paramount considerations and the public attitudes on the subject are firming, as witnessed in the FOP and Boys Town news stories and the requirements of government control commissions.

So, in a sense, these standards for administration are not some idealistic notion by a group of dreamers. They are based upon the experience and judgment of people in the industry, experts from other specialties (accounting, public relations) and the requirements for sound internal administration which meets the needs of contractors, givers, and certifying bodies.

□ In summary, then, we might say:

Summary

1. There is no such thing as a nonprofit agency operating in a wholly free atmosphere.
2. Many of the constraints upon our freedom, both legal and attitudinal, are sound. They are designed to protect the public from predators in the field, as well as to stimulate all of us to improve and update the way we do business for the benefit of those we serve.
3. We are accountable as institutions and it is necessary that we make appropriate public disclosure of our operations—our finances, management, and services. We are accountable because: a) there are laws that require us to be; b) there are providers of money and users of service that expect us to be; and c) it is ethically right for us to be.

Commission on Standards and Accreditation of Services for the Blind. *The Comstac Report*. New York: Author, 1966.

Freitag, W. On efficiency and responsibility in nonprofit organizations. *Management Controls*, May 1973, pp. 106-107.

National Health Council & Social Welfare Assembly. *Standards of accounting and financial reporting for voluntary health and welfare organizations*. New York: National Health Council, 1964.

United Way of America. *Standards of excellence for local United Way organizations*. Alexandria, Va.: Author, 1973.

Shoals and Storms Ahead?

Funding Trends

ABSTRACT: This analysis of trends in fund-raising includes the following topics: the general economy, the patterns of federal funding and private philanthropy in recent years, the recipients of contributions, financial reporting, state laws, the role of lay volunteers and professional fund-raisers, the costs, the training of fund-raisers, tax exemptions for gifts, and the current picture in work for the blind. The author concludes that fund-raising must be revolutionized if the money needed for the important work still left undone is to be forthcoming.

Our purpose here is to discern those major fund-raising trends which affect local agencies serving blind people. To do this, at least a dozen persons in the U.S. are better qualified than I am. But seeing none present, and having had the thoughtful advice of several among them, I will proceed.

The title of this paper is "Shoals and Storms Ahead?" Shoals are places where a sea or river is shallow, where some mariners run aground but need not do so if their charts are reliable and pilots know what they are doing. Storms can be mightily destructive, but eventually pass after doing their worst.

Inflation has been going on so long it is more like climate than weather. The great difficulty inflation curses upon fund-raising is its pervasiveness. If you emphasize its ravages to a prospective donor, he is far more likely to feel sorry for himself than to empathize with your agency's dilemma. The answer is in John Price Jones' observation: that while people reluctantly bring themselves to assist needy agencies they leap to support great causes.

□ The worst storm on the fund-raising scene I see ahead is an economic crunch that could be much worse than the serious 1969-70 recession. I would enjoy being wrong about this. As citizens you are free to blame either or both political parties, neither having had the courage to increase taxes substantially in the upper brackets or to plug huge loopholes. And no national administration here or abroad has had the competence in foreign policy to bring about the only possible workable answers to world-wide inflation through enforceable international agreements.

But these are national and global matters we can do little about. There may be some comfort in the knowledge that many agencies for the blind have survived full-scale depressions. Those responsible for a high standard in services surely want more than mere survival. At the risk of being a Cassandra, I submit that your chances to thrive during the next few years require more daring. To grow in service, through innovative attempts to make measurable gains against long standing unmet needs, you may well need fresh risk capital beyond what you must have to pay your overhead and basic operating budgets.

This article is based on a speech Mr. Urrows gave at the PR Workshop, sponsored by Interest Group 8 of the American Association of Workers for the Blind, July 22, 1973, in Cleveland.

H. H. URROWS

Mr. Urrows is a fund-raising consultant with extensive experience in the field of service to the blind.

The Economy and Fund Raising

Much of my data is drawn from philanthropic areas outside services to the blind, at least in part because there is no central source of facts on local agency finances. Still, the facts cited relate to money raising problems and opportunities in several kinds of funding sources: United Funds, federal and state governments, foundations, corporations, and individual donors ranging from those who make five, six, and seven-figure gifts to the larger numbers of persons who give much smaller sums. Where possible I will relate national fundraising trends (with time only to touch upon) to planning considerations: board and staff leadership; prospect identification, research, and cultivation; how to interpret what you do and why, and the specific steps you take to ask for money.

The long-range trends are so plain they are self-evident. Yet few of them are quite as simple as they seem. If it were easy, you would have done what is needed long ago. The reason for examining trends is to help boards make informed decisions, so that agencies can cope with those factors they can influence.

For decades there has been a steady increase in the total amounts of money raised each year. Constantly more agencies and institutions ask for it. With rises in prices and costs, money has become worth less. Distinctions between voluntary institutions, public tax-supported agencies, and private businesses conducted for profit have become perforated; their methods, people, and resources are no longer separate and are often partly interchangeable.

Within our lifetimes government has taken increased initiatives and responsibilities to provide social services. But the immediate short-term trend is that neither federal nor state agencies are about to increase greatly their scale of support for what agencies for the blind do and what professional authorities in the field say blind people need. For long-established training and services rendered directly to blind persons, the payments should be here to stay. But federal grants underwriting research, demonstration, and vital professional education projects will continue to be very tough to get. The next four years, to coin a phrase, are to be endured. And unless there are potent, inspired developments unknown to me, I cannot foresee large private disbursing foundations searching for ways to begin filling the vacuum.

There has been a truism belabored over decades, that the quest for gift dollars keeps getting ever more competitive. The abler professional fund raisers agree with this while contradicting themselves, pointing out holes aching to be filled, stating that there is plenty of money around for those who take the trouble to go out and get it.

□ Let's take a quick trip across the philanthropic topography in recent decades. Data the American Association of Fund-Raising Counsel has compiled in its annual *Giving U.S.A.* (Lundberg, 1973) estimate that Americans contributed \$10.67 billion in 1963 and \$22.68 billion in 1972. In raw dollars that is more than double. But in 1967 dollars' purchasing power it is a less steep rise from \$11.6 to \$18.1 billions. And because our gross national product multiplied from \$590 to \$1,151 billions over the same ten years, philanthropy's share went from 1.81 to 1.91 percent of the GNP, a far shorter jump than dollar totals indicate.

Why examine trends?

Cutback in federal funds

Philanthropy in Recent Decades

In this same 1963-1972 decade money given by individual living donors went from \$8.3 to \$16.9 billion, slightly better than double. Bequests rose from \$820 millions to \$2.73 billion per year, more than triple. Foundation giving did nearly as well, from \$820 million to \$2.2 billion. Corporate gifts went from \$660 to \$840 million per reported year, much more like a plateau.

Of the total \$22.68 billion estimated given in 1972, three out of every four dollars came from living individuals; one in eight from bequests; not quite one in ten dollars from foundations, and 3.7 percent, less than one-twenty-fifth, from corporations.

What does this mean to local agencies for the blind? If you can steadily build your membership—and strengthen concern by members for your program—within the rules of your United Fund, do it. Individuals and estates gave 88 percent of the money contributed nationally last year.

□ Comparative slices of the enlarged pie taken by separate fields of work are of pertinent interest. Comparing 1962 with 1972, churches and religious agencies slipped from 51 to 43 percent of all contributed receipts. Education declined only slightly, from 16 to 15.7 percent. Social welfare, which would normally include local agencies for the blind, declined from 15 percent of all contributions in 1962 to 7.1 percent in 1972. Health agencies and hospitals' gifts went up, from 12 to 16.2 percent. Civic and cultural causes, which *Giving U.S.A.* had lumped in 1962 within the miscellaneous group of two percent labelled "Other," emerged getting 6.8 percent of all reported gifts (\$1.54 billion) last year. That is better than triple all monies estimated being spent by all agencies serving the blind.

By way of caution, let me invoke Urrows' Second Law: the fact that another agency raises more does not mean that yours gets any less.

So much for the start of our quick Cook's tour. Before ticking off other trends, let's see what this sort of bird's eye quantification could mean for your agencies which were estimated to have spent *in toto* from all sources six years ago less than \$60 millions annually. First, United Funds were reported to have allocated \$2.3 million in 1966 to 115 agencies for the blind. Something less than four percent of those agencies' expenditures came from United Funds. One agency for the blind had United Campaign income as high as 11 percent of its 1972 income.

□ I am indebted to United Way of America and its executive consultant, Charles X. Sampson, for useful perspective. Gifts from corporations rose from \$125.9 million in 1954 to \$270.7 million in 1972, declining from 40.9 to 29.6 percent of all United Funds income nationally. Over these same 19 years employee and executive gifts climbed from \$91.4 million to \$508.5 million. That is a leap from 29.7 percent in 1954 to 55.6 percent of all United Way collections in 1972. Residential gifts raised through neighborhood canvass are currently less than five percent of United Way money raised, until we get down to the 226 smallest sized campaigns which get between \$100,000 to \$500,000, from among their 451 cities nationally. Foundation support, incidentally, comprised only 1.5 percent of all United Way collections in 1972, one-tenth of one percent more than in 1971.

Who gives money?

Individuals and bequests contribute most

Who Gets the Money?

Others prospering do not make you poor

United Funds

One clear trend affecting United Fund beneficiaries is the requirement for financial reporting that permits easier comparison between agencies. A March 1972 memorandum from the United Way of America anticipated that "all local and state United Way organizations will be reporting to the public according to the *Standards* by 1973 for 1972 activities. Agencies participating in local United Way drives should be reporting to their United Way organizations in conformity with the *Standards* by 1973. . . ."

This refers, of course, to the *Standards of Accounting and Financial Reporting of Voluntary Health and Welfare Organizations* (1964) issued by the National Social Welfare Assembly (since renamed the National Assembly for Social Policy and Development), informally called the "black book." These standards are closely related to those of the National Accreditation Council for Agencies Serving the Blind and Visually Handicapped.

☐ Staff heads of agencies taking part in the Combined Federal Campaign Plan should know that the U.S. Civil Service Commission requires for 1973 certification conformity to the *Standards* as a condition for an organization's participation in the Campaign and, thus, in solicitation through federal establishments. If your services are in an area where there is considerable federal employment, and you have not looked into the possibility of taking part in the Combined Federal Campaign, you should.

There are two other consequences of the trend toward more uniform financial accountability worth mention here. HEW has adopted the NHC-NASPD *Standards* for developing indirect cost rates for voluntary agencies receiving HEW grants and contracts. While federal grants and contracts promise to be at low tide for years, they may well become available again. Make sure that your certified public accountants become familiar with the "black book." I have not asked State Departments of Vocational Rehabilitation or Education, whether they are thinking about adherence to the *Standards* as an aid toward setting rates, but to get your fees increased these principles wear the cloak of authority.

The second development is part of the increase in state laws affecting fund-raising, passed by 23 states and the District of Columbia. The first of these was North Carolina's 1939 law, amended in 1969, requiring that agencies conducting campaigns be licensed by the State Department of Social Services and that reports be filed within 120 days after the end of a fiscal year on forms adopted by the Department. New York's 1954 law, amended in 1971, requires agency registration with the Board of Social Welfare; annual reports filed within six months after the end of a fiscal year according to uniform standards prescribed by the Board; cost limitation of 50 percent for mail solicitations which include unordered merchandise; and state registration of professional counselors and professional solicitors, with a \$5,000 bond required of the counselors.

This is not the place to review all state laws on campaigns, much less the growing number of local ordinances, except to note that some have set limits on fund-raising costs. Pennsylvania has a ceiling of 35 percent; this could prove arduous to agencies which depend heavily on direct mail, particularly new

Financial reporting requirements

Consequences of Trend to Standards of Financial Reporting

HEW's position

State laws affecting fund raising

Limits on fund-raising costs

agencies lacking a backlog of former donors for renewals. Wisconsin requires a separate report on any solicitation or special event which brings in more than \$500 and costs more than 25 percent of the amount raised, with the report to be filed within 30 days of the completion of the project or special event.

□ Special events bring us to the whole matter of volunteer leaders and workers. Unless you hitchhike onto a successful established occurrence—and some agencies have fallen into just such tubs of butter—you can't hold benefit events for which people pay unless you have ticket sellers. Of the dozen leading local agencies for the blind whose staff heads helpfully answered my questions, there was a range. At the prosperous edge was one lighthouse which estimated it had about 1,200 volunteers, the majority of whom engage in fund-raising activities of one form or another. It has a board of 38, the majority of whom work on fund-raising committees. At the other end of the spectrum are agencies which depend entirely on mail for contributions or rely entirely on their United Fund, having virtually no board people nor other volunteers who ask for money.

A longtime trend in many fields—colleges, health and youth movements, symphony orchestras, museums, and arts centers—is to invest work organizing the involvement of volunteers in ways which enhance program participation and understanding. It pays off cumulatively in annual giving, and culminates in larger gifts for capital needs, deferred giving, and bequests.

□ Most of the agencies replying to me have relatively small turnover on their boards. Several do not seem to have boards particularly active in helping them to face up to long-term financial needs. When Robert McIver was president of the New School for Social Research, he defined to me a board's function: to see to it that an institution goes forward under any circumstances. If I am right about our entering a period when there will be a severe recession and continuing inflation, with government money continuing to be tight, the role of volunteer leadership for fund-raising and fiscal management will be more crucial than ever in the past.

About ten years ago the National Society of Fund Raisers asked me to organize a panel on the "Use and Abuse of Volunteers." Drawing upon several fields, certain principles were evident: emphasize quality of program and needs for it; afford opportunities for satisfaction and recognition, and give those who contribute time and work competent staff support.

There is no magic formula to strengthen lay leadership. The first rule is a sobering one: you must start from where you are, work with those you have, yet point toward where you want to be. Nominating committees vary enormously in their resourcefulness. Dead wood is hard to chop out, but can keep an outfit moribund. It can be useful to have volunteer committees on which potential board members prove themselves before election. Most agencies with stultified programs or in dire financial difficulties reflect failures of leadership at board and staff levels. There are examples, however, of institutions and organizations which have reconstituted their leadership. The ones I know about did this while revitalizing their programs, at least to the extent of making what they did attractive to new people prepared to help them with ideas, work, and money.

The Role of the Volunteer

The volunteer and participation

The Role of the Board

Strengthening lay leadership

Volunteer committees as a training ground

□ I doubt that your agencies' finances are likely to become disaster areas akin to those now exemplified by libraries which have had to cut back services, or those colleges hurt worst when caught between federal cutbacks, diminished enrollments, and higher costs. For perspective, though, I commend Earl F. Cheit's book, *The New Depression in Higher Education* (1971), a study of financial conditions at 41 colleges and universities, made as a 1971 report for the Carnegie Commission on Higher Education. (See also his sequel, *The New Depression in Higher Education—Two Years Later* (1973), which finds that while "most of the nation's institutions of higher education seem to have achieved a tentatively stabilized financial situation . . . it would not take much to destroy the stability and force the institutions on a downward course again.")

He found that colleges headed for financial trouble responded first by cutting back planned program growth; then cutting maintenance (with needed work often turning out to cost more in the end); trimming expenditures for supplies, equipment, and travel, and cutting funds for experimental programs. As Professor Cheit put it, "Innovation suffers, and suffers early in the process of adjusting to more difficult financial circumstances."

Mind you, the Council for Financial Aid to Education reports that the \$2.02 billion given by private sources to American colleges in 1972 was a record total. I find more useful the 1970-71 report on gifts and bequests to 50 selected colleges and universities issued by Brakeley, John Price Jones, Inc. (6 East 43rd Street, New York, N.Y. 10017). It found a 5.2 percent increase in voluntary support over the previous year, which was due to the remarkable increase of 86 percent in bequests. Gifts and grants from living persons, corporations, and foundations had declined ten percent. The reasons seemed to be disaffection among alumni and friends, decline in the national economy, and a feeling among some donors that colleges and universities were not being well managed.

The increased bequests did not come about by accident. Many of the colleges had begun active programs to stimulate bequests and deferred gifts years earlier.

John W. Leslie, president of the American College Public Relations Association, has written a thoughtful book published last year. Titled *Seeking the Competitive Dollar: College Management in the Seventies* (1972), he shows how there has been a steady rise in the cost of raising money for colleges, with salary levels of managers, fund-raising directors, and public relations directors.

□ I wish it were possible to say that a fool-proof way to increase net income and endowment is by hiring either a professional fund-raising director or firm, and that this will surely mean your financial problems would be solved. It could be true, but only if the entire program and key people are ready for constructive change and that the fund-raising resource chosen is right for you.

Robert F. Duncan, the ever-young sage who has worked on campaigns since he got out of college in 1912, voices fine scorn for peripatetic fund-raisers who go from one incompetent performance to their next jobs, exploiting the reputations of those institutions for which they temporarily worked. Bob Duncan replied to me in a handwritten letter scrawled at Heathrow Airport outside London on his way to Greece, as follows:

Libraries and Colleges

Increase in bequests

The Professional Fund Raiser

"For the near future, I think government support for the non-profits will decrease. Whether the private sector will come to our rescue depends on how well the institutions use fund-raising help or—without it— tell their story and organize to raise money. Today professional fund-raising help isn't what it might be. There is no formal training ground for fund-raisers.

"Of course we shall always have philanthropic fund-raising. But it will be increasingly difficult to get workers and leaders. . . .

"The trend away from the use of professional firms will, I fear, continue. Institutions are more and more building their own staffs, partly because they think they can save money and partly because the firms have great difficulty finding experienced personnel. The result with the institutions is that, in many cases, it is 'the blind leading the blind.' . . ."

□ In the context of higher education, which I am sure has some resemblance to the field of local service, Bob Duncan summed up what he regards as prime needs:

Prime Needs

"1. Much better financial management, more imaginative public relations taking potential supporters into their confidence, and better communications on the part of the institutions.

"2. Much broader education on the part of fund raisers: (A) knowledge of the principles of management, (B) the same for institutional finance, and (C) imagination in seeking out and developing *new sources of support*. . . ."

Replies to me from agencies for the blind showed rather few professional fund-raisers employed, although one had a department of development with 17 persons and another had a dozen in its mail room. It could be that professionals are not needed in most of your organizations. Those that have hired them have people with up to ten years experience working for other non-profit groups. Those who have searched for fund-raising directors should know the difficulties. My toughest assignments have been helping find such help.

Harold L. Oram, whose four professional firms have done extraordinarily effective work for social movements and for institutions, wrote me this:

Shortage of qualified personnel

"It is virtually impossible to find available and experienced account executives who are competent to handle an account. There is no educational institution training them and the few firms giving on-the-job training treasure their product. Additionally, the American Association of Fund-Raising Counsel member firms are bound not to hire fellow members' personnel. Thus, it is necessary to train your own personnel and we do as much as we can, offering opportunities as assistants and secretaries to become account executives after they have mastered the craft."

From my observation, the great value of retaining a firm is that the abler ones combine first-rate skills with realism and probity: they take full responsibility for rendering good service, with good back-up by their senior men and women for the work directed by their account executives. You hire the firm and get the man, men, woman, or women it assigns. As in other fields, the people who run responsible firms value their reputations and intend to stay in business, getting their referrals from well satisfied clients.

Professional firms

I regret that this is far from 100 percent of client organizations' experience. When checking references of professional firms being considered, I have en-

countered some which named former clients whose experience with them had been poor. And I won't ever forget interviewing a candidate for a fund-raising directorship, who submitted among his samples of past handiwork a brochure I had written.

Well, even medicine and the ministry have their misfits. What a difference between these toads and the able people from an excellent firm. They have the stature to work directly with you, your officers, and directors in an atmosphere of mutual respect. They bring knowledge, judgment, and integrity which help you go to the heart of stubborn problems. You pay for the truth, and get it.

□ George A. Brakeley, chairman of Brakeley-John Price Jones, wrote me that "The trend has been toward in-house staffing, rather than the use of the firms, at least this is what we're told, although we don't observe it in this company. As far as annual corporate and routine giving is concerned, there's too much professional staff solicitation, but generally the doors have been opened by volunteers." I have noted instances of exceedingly effective professionals who solicit, but men like the late Paul Frillmann of the Oram organization are extremely rare; they also know when to let the client carry the ball at particular foundations.

Trend to In-house Staffing

One development I hope we will continue to have is the emergence of new, smaller firms. Frantzreb & Pray Associates, in Arlington, Va., are strong on long-term counseling, helping organizations and institutions build from where they are to where they want to be. Arthur Frantzreb likes to recall that when Charles Eliot was Harvard's president he had one staff member whose special task was to remind him to keep in touch periodically with those 100 persons on whom Harvard's financial future depended. Irving R. Warner, headquartered in Los Angeles, is a meticulous professional with a very strong track record serving clients based in Boston, Atlanta, and elsewhere. Epsilon Data Management in Waltham, Mass. was formed only three years ago by four Harvard Business School alumni. It specializes in the use of computers for direct mail. Because mail is the most costly way to raise money, its greatest value is to identify those donors who show most promise of becoming sources of large gifts and bequests; Epsilon states that cultivation of these prospects is up to the client's own organizational efforts.

More small firms

□ By and large, organizations for the blind do not seem to appreciate how expensive their fund-raising by mail is. One reply to me told of 100,000 donors whose gifts totalled \$200,000 last year. Studies I know which have examined small gift solicitations have found that they cost over two dollars each to get and to acknowledge. In some instances it is plain that your fund-raising is a relatively unexamined process, with staffs too busy to obtain the rather elementary information I had requested.

The Expense of Direct Mail

Bob Duncan and Harold Oram may soon no longer be right about the absence of didactic preparation for professional fund-raisers. Already, there are the annual seminars on institutional finance at the Harvard School of Business Administration, which Bob helped start with Sloan Foundation support.

(Let me digress here, relating organization of fund-raising work to evidence of effective management so desirable for an agency's attempts to get and keep dynamic lay leadership. This is more easily prescribed than got; more people

preach the systems approach than practice it, and in most fields cost-effectiveness yardsticks are as yet crude instruments. Vocational rehabilitation had until recently deft federal budgeteering on the grounds of its cost effectiveness; those of you familiar with the realities know that much of its statistical facade hid the three H's—hernias, hearing aids, and hemorrhoids—which help get money to pay for the more costly rehabilitation of severely disabled people. Toward the sort of evidence which can show good management, your National Accreditation Council is surely a stride in the right direction.

(One useful index of competence could be in the management of your endowment. One agency wrote me that its portfolio had quadrupled in the 22 years' service of its recently retired treasurer. Its 1972 annual report shows, according to my long division, income from investments of 3.3 percent and increase in the unrealized appreciation of its endowment of 11.2 percent. Every investment committee member should be asked to read, and report back to its board on current stewardship in words laymen can understand, according to the two Ford Foundation reports, *The Law and Lore of Endowment Funds* and *Managing Educational Endowments*. I know one professional society whose two investment funds were managed to bring 1972 rates of return of 20.5 and 23.4 percent. And the University of Rochester's consolidated endowment fund is reported to have brought a 1972 return of 30.2 percent.)

□ Returning to fund-raisers' preparation, four university graduate schools of social work (Brandeis, Case Western Reserve, Maryland, and Yeshiva) have announced "a program to develop fund-raising as a profession and train people in fund-raising for Jewish communal agencies" (*New York Times*, December 24, 1972). I am skeptical, because the men who could be great teachers are too busy. A systematized craft exists. Yet the literature is as poor as that in personnel and guidance, instructional technology, and public relations.

The United Way of America has recently launched a "Personnel Renewal and Development" program; it intends to recruit, train, and place 100 "comers" over four years, retrain up to 200 currently employed professionals, and shift about 15 senior professionals in key positions to new assignments as a way of opening up their system to younger and more vigorous people. That sort of cooperative in-service development appears to me likely to be more productive than graduate work which is apt to be no more effective than most schools of journalism, communications, and broadcasting.

□ Joseph F. Nee, president of the National Foundation, raises a spectre of possible danger to fund-raising. He fears change in the tax law could damage March of Dimes results, which have climbed from \$22 to 33 millions annually from 1968 to 1972. "There is no question," he wrote me, "that some of the proposed 'reforms' in the federal tax structure could raise havoc with us in the future." When I asked him to enlarge on this, he said he meant that proposed changes would diminish gifts of appreciated securities and bequests. George Brakeley predicts that philanthropy will increase in the next decade from \$21.5 billion by at least 50 percent, but qualifies this with an *If* about Wilbur Mills' understanding of the problems.

These are not imaginary bugaboos. Conrad Teitell's testimony as counsel to the National Health Council, the American Association of Presidents of In-

Endowment management

Professional Education

Tax Law Changes

dependent Colleges & Universities, the National Association of Hospital Development, National Board of the YMCA's and numerous other institutions before the House Ways and Means committee last April is very specific. It requests that nine kinds of tax incentives to charitable giving removed by the Tax Reform Act of 1969 be restored. And opposes nine other proposals that would adversely affect giving. The "overcorrections" provided in the 1969 tax law did, and new proposals for disincentives to giving would tend to reduce the number and size of larger contributions and bequests.

In his 1972 annual report as president of the Carnegie Corporation of New York, Alan Pifer suggested a different negative factor. After recognizing "the disenchantment of a growing body of citizens with the entire tax structure of its regressiveness and hence inequity toward lower income taxpayers" he pointed out what could be far worse for nonprofit agencies. "It is possible that public attitudes, not just toward the charitable deduction but toward charity itself, may have undergone a transformation," he wrote. "To some Americans, charity has apparently become uncoupled from the notion of *public* benefit and tied to the idea of *private* advantage and privilege," according to Mr. Pifer who reminds us that "there is a considerable public ignorance of the role which the charitable sector plays in our national life and a kind of pervasive indifference to its fate."

One answer he proposes is to increase the tax reduction any citizen may take up to 50 percent of what he gives. I doubt if that would work: as he appreciates, 63 percent of taxpayers now take the standard deduction. The best antidote local service agencies can furnish to the asserted disenchantment with charitable work is to give donors more satisfaction from helping support what you do.

A less direct threat to agencies than adverse changes in the tax law, but no less potentially harmful to support of services to blind clients, is HEW's proposed rule that would exclude all donated private funds and gifts in kind from a state's base for obtaining matching federal funds for service programs for families, children, and the aged, blind, and disabled persons. The Council on Foundations has filed comments urging rejection of the proposal (*Foundation News*, May/June 1973). If it has not already done so, even though HEW modified its position in rules effective July 1st, the American Association of Workers for the Blind should look into the question and take a position.

□ Fifteen years ago I addressed this convention on the effect of fund-raising on public opinion and education (Urrows, 1958). I found that the leaders and published writings of your field strongly agreed that money raising reinforced the "mass dependency" attitude toward the blind held by a majority of the sighted public. From my assessment of the studies asserting this, the conclusion was unproved. And the letters and printed pieces for fund appeals used by 25 leading national, regional, and local agencies for the blind were in my opinion negligible in their capacity to influence opinion generally.

A few years later M. Robert Barnett expressed to me his rather different objection to the themes used in fund-raising for the blind. He said he was continually advised by fund-raising personnel to emphasize appealing blind children and employable blind adults, while the majority of blind Americans are older people. Even though most references to fund-raising in the "OSTI Re-

Attitudes toward charity

50 percent tax reduction on contributions

Fund-raising and Public Opinion

port" (*Blindness and Services to the Blind in the United States*, 1971) are based on absolute inexperience, I must now agree with Dr. Barnett on the same point made so forcefully by Dr. Robert Scott in his book (Scott, 1969) and supplementary paper to the "OSTI" Report.

In the light of the repeated strong emphasis on the needs of the elderly blind in your field's publications, I am sure that it would be valuable to conduct well designed and financed experiments for sensitizing the American public through the mass media to problems of geriatric blindness. I do not underestimate the complexities and difficulties, having recently put in the better part of a year on a campaign for a retirement residence.

Americans are sentimentally infatuated with youth. Despite the Comprehensive Older Americans Service Amendments of 1973, we the people are far too callous to the plight of poor, sick old people. Older persons of means, by and large, do not identify with and are self-centeredly indifferent to their less fortunate contemporaries. Persons from their twenties well into their fifties appear constitutionally unable to imagine themselves at a time when they will be old and ailing.

Some of the most worthwhile jobs that need doing are the toughest. I agree with many of Bledsoe's objections (Murphy & Bledsoe, 1972) to the "OSTI Report." I do not suggest that any of your service programs do anything less for children and vocationally trainable young adults. But the services older blind people need will take much more planning, professional skills, and money than they have had. Fund-raising at local as well as national levels will demand nothing less than a revolutionary application of committed leadership and organizational talents if we are to get on with this important part of our nation's unfinished business.

Geriatric blindness

A revolution in fund-raising is needed

Blindness and services to the blind in the United States: A report to the Subcommittee on Rehabilitation, National Institute of Neurological Diseases and Blindness. Cambridge, Mass.: Organization for Social and Technical Innovation, 1971.

Cheit, E. F. *The new depression in higher education*. New York: McGraw-Hill, 1971.

Cheit, E. F. *The new depression in higher education—Two years later*. New York: McGraw-Hill, 1973.

Council for Financial Aid to Education. *Voluntary support of education 1971-72*. New York: Author, 1973.

Leslie, J. W. *Seeking the competitive dollar: College management in the seventies*. Washington, D.C.: American College Public Relations Association, 1972.

Lundberg, J. McC. (Ed.) *Giving U.S.A.* New York: American Fund-Raising Counsel, 1973.

Murphy, E., & Bledsoe, C. W. Two views of the OSTI Report. *Contemporary Papers*, vol. 7. Washington, D.C.: American Association of Workers for the Blind, 1972.

National Health Council & National Social Welfare Assembly. *Standards of accounting and financial reporting of voluntary health and welfare organizations*. New York: National Health Council, 1964.

Scott, R. A. *The making of blind men*. New York: Russell Sage Foundation, 1969.

Urrows, H. H. Effect of fund raising on public opinion and education. *New Outlook for the Blind*, 1958, 52, 298-302.

Bibliography

Sensory Aids for Blind Persons

ABSTRACT: This state-of-the-art report includes descriptions of travel aids (Russell's Pathsounder, Kay's ultrasonic spectacles, Benjamin's Laser Cane, and Mims' Seeing Aid), electronic reading machines (the Optacon and the Cognodictor), and vision substitution systems (the research of Collins and of Brindley). The future prospects for sensory aids are discussed in the light of marketing problems, the interest (and disinterest) of large companies in such research, and present levels of funding.

For almost 50 years researchers working alone or in small groups have labored to devise a variety of sophisticated electronic devices to supplement or replace the customary travel and reading techniques of blind persons. Traditionally the cane has been the mainstay of the blind and, crude as they were, primitive canes at least provided the degree of warning necessary for individuals to muster the courage to travel from one point to another unassisted. In the last century, Louis Braille devised the system of raised dots whereby print could be encoded so as to be accessible to those blind persons willing and able to learn the code. And in this century canes and their use have been refined to the point where the properly trained blind traveler can get about with almost complete independence.

Canes, braille, and other mechanical aids and appliances for the blind, however, have major limitations. The cane cannot detect overhanging obstacles and braille reading material is limited in availability. Advances in technology, particularly during and after World War II, resulted in the development of several electronic devices designed to supplement mechanical aids, but most of them were found to be impractical in tests with blind subjects. Less complex aids and appliances such as braille watches, raised outline maps, sewing aids, kitchen equipment, games, and insulin syringes which can be preset by a physician had better success.

In recent years, sophisticated electronic aids have become more successful than their predecessors in tests with blind subjects, and for the first time reading machines which convert ordinary print into raised outlines on a small panel and radar-like guidance devices have become practical. While only a few of these new aids are being produced in any quantity, it is likely that several different reading and travel aids will be commercially available within a few years. ☐ More than 20 electronic guidance devices have been developed over the years, but only a handful remain. These are divided into those which use ultrasonic sound and those employing invisible infrared light.

Sonic devices are represented by the Pathsounder developed by Lindsay Russell and Dr. Leslie Kay's ultrasonic spectacles. Russell's device was developed with the assistance of the Sensory Aids Evaluation and Development Center at the Massachusetts Institute of Technology. The unit is about the size of a camera

FORREST M. MIMS

Mr. Mims is a professional freelance science writer and the inventor of several aids for blind persons.

50 Years of Research

Limitations

More success

Electronic Travel Aids

and is worn suspended from the neck by a short strap. In operation the aid emits one of two warning tones as an object comes within about three to six feet of the user.

Kay's aid is more sophisticated and closely resembles the sonic radar employed by bats and porpoises. The apparatus consists of a modified spectacle frame housing ultrasonic sending and receiving transducers connected to a pocket-carried electronics and battery package by a thin electrical cable. Information is coupled to the blind user via a plastic tube inserted in each ear.

Though Kay's device provides far more information than the simple "go-no go" output of the Pathsounder, there is some question about the value of the added communication. While the Pathsounder's output consists of the presence or absence of one of two tones, Kay's sophisticated sonic radar provides a complex and ever-changing assortment of sloshings, wheeps, and rushing sounds with varying degrees of intonation and amplitude. The idea is to provide information about the distance and the surface nature of an object being detected; the result is a kind of futuristic electronic music. The device has two channels in order to provide information about the location of an object, and it is up to the blind user to sort out the different sounds which may appear at each ear and to interpret them. It is a task which requires a great deal of training and which may not be possible if the ambient noise level is high or if local environmental conditions require special concentration.

□ More because of technical limitations than a preference for the Pathsounder's simplified output signals, engineers developing infrared travel aids have settled on the "go-no go" approach. Two major devices are currently undergoing testing and evaluation by the Veterans Administration. One, the Laser Cane, was developed by J. Malvern Benjamin, Jr., and his associates at Bionic Instruments, Inc., with the active support of the Veterans Administration's Prosthetic and Sensory Aids Division. The Laser Cane represents a happy use for a class of coherent light generators which under certain circumstances can *cause* blindness.

The cane detects objects by projecting three laser beams up, away, and down from the user. The presence of an object is signaled by either a vibrating pin in the cane's handle or a high-pitched tone. As with other aids, the Laser Cane is not without disadvantages. The cost is high, with present models going for \$4,500 each, but Benjamin hopes this can be reduced to about \$1,000 if the aids can be produced in quantity. Being built into a cane makes the aid convenient from the standpoint of the user, but the use of lasers reduces battery life to four hours between chargings and increases the complexity of the circuitry.

Benjamin reports that the Laser Cane has been well received in tests with blind subjects. His own opinion about the cane was given a lift during a recent test session in the crowded Chicago Loop area. Benjamin and a mobility trainer had been following a subject using the Laser Cane for some time when the inventor noted that the blind traveler was doing as well as a sighted pedestrian. Was the electronics really making a contribution to the mobility of the traveler? The trainer responded by turning the cane's circuits off for the next block in what proved to be a convincing experiment. The traveler bumped into five pedestrians, almost knocking one of them down, and resumed normal travel only when the cane's circuits were reactivated.

Kay ultrasonic aid

Complex output

The Laser Cane

Operation



FIGURE 1
The Seeing Aid

□ Since 1966, I have been independently pursuing the development of a second kind of infrared travel aid. This aid employs infrared emitted by inexpensive and long-lived light-emitting diodes rather than the relatively costly, short-lived lasers. The present device, which I call the Seeing Aid, weighs less than three ounces and is mounted in its entirety upon ordinary eyeglass frames. It is the smallest travel aid yet developed, and at \$250 its cost is about a fourth of the next most inexpensive device (Figure 1).

Operating in a manner similar to that of the Laser Cane, the Seeing Aid detects objects by projecting a narrow beam of invisible infrared directly ahead of the blind user's head. If an object comes within the detection range, some of the infrared is reflected back toward the glasses where it is detected by a sensitive receiver. The reflected signal is amplified and passed to the ear through a thin plastic tube in the form of a musical tone. The tone is emitted only when an object is present, thus making the Seeing Aid a "go-no go" device. Since the infrared beam is narrow (making a spot about the size of a dinner plate at ten feet) the user can "look" for objects by simply moving his head.

Presently the Veterans Administration is testing two of the aids and I am working with a third. Early indications are that the aid provides ample sensitivity for the detection of common head-level objects such as overhanging tree boughs, signs, awnings, and cabinets. In my tests in Albuquerque, the aid's greatest value seems to be the detection of tree branches. Users also find the unit handy for standing in line, an unpleasant chore requiring the blind person to tap, nudge, or query the person ahead to determine when he has moved forward. The aid is also convenient for finding open doors and hallways and looking directly at people during a conversation whether or not they are talking and thus providing the auditory cues which reveal their position.

To date, all work on developing the infrared eyeglass aid has been financed without outside assistance. The Southwest Research Institute of San Antonio, Texas, however, has recently become interested in the project and has prepared a very detailed technical proposal for the development of an improved device. Presently, funding is being sought, thus far without success.

The Seeing Aid

Operation

Advantages

□ While practical travel aids are of recent origin, electronic reading machines have been around for quite some time. In 1912, Fournier d'Albe, a British scientist, invented a light-sensitive device capable of responding to printed letters. Called the Exploring Optophone, the unit produced a musical tone whose frequency could be related to the letters of the alphabet after a lengthy period of training. In 1923, a young blind girl, Mary Jameson, was able to read print at an astounding rate of 60 words per minute in a public demonstration of it.

In recent years d'Albe's concept has been refined with more modern electronic techniques by the Battelle Memorial Institute and Mauch Laboratories. Though the degree of electronic sophistication has increased, the learning time is still lengthy since various letters and print styles produce very complex tonal patterns. Mauch Labs and the Stanford Research Institute have modified the audible output reading machine by developing devices which present a *tactile* output. Here individual letters are presented to the blind reader in the form of raised impressions which can be felt by a fingertip.

□ The most advanced of these devices is the Optacon, the Stanford development. The Optacon consists of a miniature electronic camera which is scanned across a line of type by one hand and an electronics section containing a fingertip-sized panel of vibrating reeds. A finger placed on the panel feels an impression corresponding to the outline of the letter being viewed by the camera. The letter "O" feels like a crater with a vibrating rim, while the number "1" is simply a vibrating line of reeds.

Since the panel contains 144 pins in a 6 x 24 array, the Optacon's resolution is sufficiently high to permit reading various print formats and even clear handwriting. Experienced users have reached speeds of up to 80 words per minute. The machine's major drawback is its cost: \$4,950. Accessories such as a service contract and a mechanical tracking aid to help keep the camera aligned on a line of print add an additional \$300. The machines are being manufactured by Tele-sensory Systems, Inc., a firm set up by Dr. James C. Bliss, one of the Optacon's inventors.

The compact size of the Optacon nicely illustrates the flexibility of its operation. It is readily portable and as such is potentially an attractive friend of blind students and businessmen. The Optacon can even be used by blind computer programmers to read instructions, program statements, and punched holes in Hollerith cards.

□ The Optacon is presently the only reading machine in production, but others are undergoing development. Some of the most promising actually incorporate a spoken voice which spells words letter-by-letter as a camera is scanned over them. One of these, the Cognodictor, is a project of Mauch Laboratories. The machine utilizes several ingenious electronic techniques to achieve its purpose and is relatively portable. Several Cognodictors have been built by Mauch Labs, and it is hoped that the devices can be improved to the point where they are practical. One difficulty has to do with the degree of precision necessary in moving the optical sensing head along a line of print.

Other reading machines using spelled speech or even spoken *words* are also being researched. Some of these techniques employ computers and are not

Recent developments

The Optacon

Versatile, but expensive

Portability

The Cognodictor

The future

practical for operation by an individual. However, it may prove entirely feasible to have such a machine set up at a central point such as a library for use by a community of users. While reading machines have the obvious advantage of freeing blind persons from their traditional dependence on braille and recorded literature, these standbys will not be replaced by advances in technology in the foreseeable future. Perhaps the major factor is the limited funding devoted to projects to aid blind persons. Nevertheless, the Optacon and other reading machines will eventually become valuable supplements to the more traditional reading techniques and one day may replace them altogether for those blind persons able to learn their operation.

□ A more dramatic approach to the development of an electronic sensory aid which might eventually find use as both a reading machine and travel aid has been undertaken by Dr. Carter C. Collins and his associates at the University of the Pacific's Smith Kettlewell Institute of Visual Science in San Francisco. Collins' device resembles the Optacon in that an electronic camera containing a mosaic of sensors is connected to an array of stimulators. But here the resemblance ends, for the Collins' device impresses the image upon the abdomen with an electrical tingle rather than the finger with vibrating reeds. Since Collins' device has only 256 resolution elements in its electronic camera, it is not practical for tasks more complex than reading print and identifying objects with a distinctive profile. Collins hopes to eventually employ a camera with more than 4,000 resolution elements, an improvement which may make his system practical for both reading and locating objects.

Although the Collins' device requires more paraphernalia and special equipment than most other electronic travel and reading aids being developed, an even more dramatic approach involves brain surgery. Some of the most notable research in this frontier science is that of a British physiologist, Professor G. S. Brindley. In 1968, Brindley was able to stimulate *phosphenes* in the brain of a blind woman volunteer by exciting various combinations of 80 electrodes implanted beneath the subject's skull. Phosphenes are the lights, colors, and flashes seen even in total darkness. They are the "stars" seen after receiving a sharp blow to the head and the vividly dynamic and scintillating displays of color produced by rubbing the eyes at night or when the lighting is dim.

Electrically stimulated phosphenes are nothing new. The effect was discovered and recorded by Benjamin Franklin when he was willingly shocked by a high voltage electrostatic generator at a social function in Paris. In those days, group-shocking sessions were in vogue; the fad was to have several persons join hands while the two at either end of the human chain touched the terminals of an electrostatic generator. Alessandro Volta, inventor of the chemical battery, and Johannes Purkinje expanded upon Franklin's observation with controlled experiments in the early nineteenth century; both scientists found that phosphenes could be readily produced by applying voltage to the temples or even between mouth and forehead.

□ Prof. Brindley's experiments have attracted considerable attention, and the National Institutes of Health, U.S. Department of Health, Education, and Welfare, is now actively funding research in the field at several universities and

Vision Substitution Systems

Phosphene stimulation

Benjamin Franklin

Brindley's Recent Research

hospitals. Meanwhile, Brindley has tried a new phosphene generator consisting of 180 implanted electrodes and he maintains that an electronic video system connected to the electrodes can provide visual impressions and information about the shape and even shading of an object being observed by the system's camera.

Brindley's work comes closest to the goal of attaining visual prosthesis for the blind, but his approach is met with a good deal of skepticism in the traditionally cautious scientific community. One of the kinder reactions recently came from Dr. Collins. Quoted in *Electronic Design* (May 25, 1972, p. 26), he expressed interest in Brindley's work and wished him "luck," but he added a skeptical note by raising the question of whether blind persons looking for a sensory aid would be willing to undergo an expensive and possibly hazardous brain operation for the proffered results.

In an age of spectacular scientific advances it would be risky to predict that Brindley's work will come to naught. Who knows whether the crude experiments of Volta and Purkinje in which visual impressions were created *without* implanted electrodes may result in a visual prosthesis technique in which visual signals are transmitted into the brain by external electrodes?

It is safe to say, however, that such a development is not in the foreseeable future. Even Collins' vision substitution system is not as spectacular as it may first seem, for its purely two-dimensional presentation may have a tendency to confuse the blind user in many typical situations. Simple devices patterned upon the passive TV approach that Collins and his associates have so ingeniously refined have failed before for this very reason, and none are now actively being researched. The fundamental problem of a vision substitution system, whether it be coupled to the blind user via mild abdominal shocks or brain surgery, is the immense difficulty of duplicating the human eye's high degree of resolution and the brain's ability to sort out the massive signal output of the retina. Those who are considering this problem have developed a sturdy respect for our natural eyes—each of which contains 105,000,000 light-receptor cells.

Technology is advancing at such a rapid rate that the prospect of achieving the human eye's resolution in a practical semiconductor array of miniscule light sensors is a distinct possibility. A fringe benefit of such a detector system is that it would have the ability to respond in very low light levels, thus providing a degree of visual prosthesis even at night. But the problem remaining, and it is a major one indeed, is coupling the vast amount of visual information from such a sensor into the processing channels of the brain's occipital lobe.

□ It is likely that several of the half dozen sensory aids now in the final stages of development will soon become practical devices. The future of vision substitution systems is less certain, but the increased research in this exciting area of work offers encouragement.

Several major problems remain before sensory aids become commonplace, with one of the most important being user acceptance. The current trend is for sensory aids to possess a high degree of human engineering so that they can be used as conveniently as possible while providing the maximum amount of usefulness. Cosmetic acceptance is a must; some early aids were ridiculously

Skepticism

Prediction is risky

The fundamental problem

Rapid advances

Future Prospects for Sensory Aids

grotesque and required the user to wear strange helmets with glass-lensed protuberances and other Martian-like gadgetry.

But even the "ideal" sensory aid is of little use if it is not used. Even if we assume that a travel aid, for example, can be developed to the point that it can be carried about as conveniently as a pair of spectacles and costs about the same as its less sophisticated cousin, the hearing aid, while providing useful information about the environment, it has been estimated that only about ten percent of the blind community would be willing and able to use the device. Therefore, depending on whose estimate of the number of blind persons in the United States one takes, there would be from about 30,000 to 110,000 potential users. The reasons more blind persons would not be able to use the aid vary greatly and include such factors as old age, poor health, and psychological barriers.

□ Even if the current sensory aids projects produce practical devices, as some already have, there is a major problem in convincing electronics companies to market them. Unfortunately, large companies have not seen sufficient justification to become committed to sensory aids projects, though several have built experimental travel and reading aids. In one case, an engineer at RCA developed an early version of the laser cane and the accomplishment was given widespread publicity. Later, however, the project was abruptly canceled, and a knowledgeable employee gave the reason as potential stockholder dissatisfaction over producing a product with little chance of making a profit and a good chance of showing a loss.

Actually, a sensory aids project might greatly enhance a large firm's public relations position. The highly creative Bell Telephone Laboratories, which receives an incredible average of three patents per working day, has developed a variety of useful gadgets for hard-of-hearing and even totally deaf phone users. Phones for hard-of-hearing persons can now be ordered as easily as a conventional phone. Ma Bell's humanitarian gesture certainly hasn't hurt the firm's public image.

The company that wants to produce a sensory aid for the good will that might result and still turn a profit might consider the potential spin-offs. Papers and articles I have written about the Seeing Aid for professional journals and electronics trade magazines have resulted in queries asking about the possibility of employing the aid's operating concept in applications ranging from automobile and boat radars to an automatic opening system for revolving doors. Markets for these applications might turn a nice profit.

As with any kind of research, other spin-offs are less direct. My work with the Seeing Aid has given me a strong interest in remote-sensing of the environment, a field hardly related to a miniature optical radar. It seems that high-flying aircraft and satellites can tell much about the health of vegetation by means of infrared cameras and detectors. Since a frequent potential obstacle for the blind traveler is overhanging tree branches, it is important to have some knowledge about the infrared reflectance properties of leaves in order to accurately predict the Seeing Aid's performance in a hypothetical situation. As a result, I have designed a simple apparatus which can be used to make the necessary reflectance measurements in the field with a fair degree of accuracy. The

The market for aids

Involving Large Companies

Public relations

Potential for spin-offs

Indirect spin-offs

instrument is cheap and portable, and I will soon share it with other researchers by publishing its description in an appropriate technical journal.

The list could go further. Reading machines such as the Optacon and Cognodictor, for example, might make important contributions to automatic character-recognition systems. And work with vision substitution systems will no doubt provide valuable insight into the brain's ability to process visual stimuli and convert them into useful images.

□ Fortunately, a few companies have become involved in sensory aids development, but each of them is in large part dependent on government support for either development of the aid it manufactures or research on new aids. This is not to say that government support is undesirable. On the contrary, by subsidizing the development of practical prosthetic devices for any group of handicapped citizens, the government stands to make a return on its investment in the added tax dollars contributed by those able to hold jobs as a direct result of their new independence.

Whether or not large scale availability of sensory aids for blind persons will make a useful contribution remains to be seen since, now more than ever, new sources of funding must be found to permit current research to be expanded. Basic money statistics reveal that far more funds are devoted to public health programs than to developing aids for the blind. Drs. Patrick Nye and James Bliss, two prominent workers in the field of developing and evaluating sensory aids, have calculated that on a per-potential-patient basis only about \$1.25 is spent on sensory aid development, as compared to \$220 for cancer and \$76 for heart disease. There is a good deal of money available to blind persons in the form of tax credits and welfare payments; in 1967, the 800 agencies which aid the blind in this country spent some \$500 million. In the same year, less than a million dollars was spent on sensory aids research.

The technology to develop practical sensory aids has been available for several years, and we are rapidly approaching an era when some kind of vision substitution system may become feasible. What is needed now is for society to reorder its priorities and shift some of the funds it charitably provides for the welfare of blind persons into programs designed to give at least some of them more freedom and independence. A few years ago Nye and Bliss recommended the establishment of a National Center for Sensory Aids Research. The current status of sensory aids development makes their suggestion even more timely.

Support for Research

Current funding

Future funding

Toward Involving the Total Community in Career Education

ABSTRACT: Because of the importance of career education to the future of today's children, parents, businessmen, and others who are sensitive to the needs of the community should be involved in comprehensive career education programs. Such interest in changing the thrust of our educational system can be achieved through public relations campaigns. In addition to explaining the program, however, it is necessary to help each segment of the community to identify the roles it can play in the program, including planning, decision-making, and helping to teach about jobs, life styles, and adult roles. To achieve this goal, a department of community relations should be established; this component of the school staff spearheads the effort, but all other staff must also be involved.

Educational reform and public criticism of the schools are hardly new issues in American life. Like death and taxes, reforming the public schools seems to be one of the few constants of our society. Many of us can remember the public furor over "sputnik" and the Conant Report. Slogans like the "right to read" or "schools without failure" or "progressive education" have been part of the American educational scene in one form or another practically from the earliest days of public schooling in the United States.

□ Now, we have the emergence of career education as the new federal government initiative aimed at reforming the public schools. For those of us who doubt that career education is indeed an "idea whose time has come," as former Commissioner of Education Sidney P. Marland, has said, perhaps the words of the President's Commission on School Finance (1972) will dispell this incredulity. "The Commission recommends that career education be given priority and status at least equal to that now accorded to college preparation and the federal, state and local governments and their education agencies take vigorous policy and financial steps in this direction."

Such official proclamations have been followed by much supportive rhetoric on the part of both political and educational leaders. Various states, including Arizona, Ohio, Wisconsin, Michigan, and others, have also initiated their own career education programs. The newly created National Institute for Education is currently sponsoring major research and development efforts for the purpose of designing and testing four prototype career education models—a business-based, a community-based, a residential, and a school-based model.

The advocates of career education are speaking of sweeping program changes which would eliminate traditional distinctions between academic, vocational, and general education. The proponents of career education often envision a career-oriented educational program beginning with preschool and continuing

ROBERT J. WEISHAN

Mr. Weishan is research and development specialist and unit chief, Community Involvement Component, Comprehensive Career Education Model, Center for Vocational and Technical Education, Ohio State University, Columbus.

Educational reform

Emergence of Career Education

Rhetoric

throughout the adult's life. Some career education enthusiasts have strongly suggested that all public school children will eventually partake in a comprehensive school-based career education program K-12.

Up until now, most of the activity surrounding the career education movement has been verbal in character. The initial phase in the emergence of career education has largely centered on professional educators trying to convince the public that major educational reform is needed and that career education is the answer to many of America's problems. Advocates of career education point to the fact that high school graduates are ill prepared upon graduation for the world of work. Drug addiction, alienation, truancy, and increasing school dropout rates are typically said in the same breath with unemployability. The apparent implication is that by preparing the child for the world of work we will move in a direction which does away with these negative associations.

□ But what exactly is career education going to do to the children once it is implemented in the public schools? Sure we all are attracted by the vague promises of something better for our children, but what lies beyond the rhetoric? Career education is being invented today in educational laboratories, state departments of education, and local public school districts throughout America. What will eventually emerge is likely to affect public schooling for the remainder of this decade and that is why the development of career education is far too important to be left to the professional educators. If career education is ever going to be more relevant than what we have been doing all along in public education, then it is going to require a great deal more public involvement by parents, businessmen, and others.

The requirement for community involvement is particularly critical in the case of designing programs for children with special needs, like those who are visually handicapped. Unless interested parents, and concerned businessmen take an active role in designing these special programs right into the career education reforms, there is a real danger that the needs of America's handicapped children might be overlooked. If that ever occurs, then it will be a very tragic waste since career education—in theory—offers so much promise as a means of making our public school education more meaningful vis-a-vis the training of handicapped children. Career education should and can—if each of us plays an active role—open up many new career opportunities for *all* children. Career education could make public schooling a really effective preparation for adult life, but it can only succeed if professional educators and interested lay people genuinely work together in order to make it happen.

□ If we can agree on the basic need for community support for public education in general, then we can begin to understand the critical importance of community involvement to the process of educational change. Schools are, in the final analysis, institutions founded by the community, financed through public contributions, and designed to meet the needs of the community. If the school wishes to remain a viable institution, it must continuously be sensitive to the changing needs of the community. If educators are aware of the changing community needs and adopt new educational programs (like career education) to meet those needs, then the school system must be prepared to demonstrate to

Convincing the public

Beyond the Rhetoric

Requires more public involvement

A real danger

Basic Need for Community Support

the community how these educational changes really benefit the best interests of the public.

□ Beyond the fundamental requirement for a mutuality or concensus in the initiation of the change process lies the secondary requirement for creating cooperative involvement in the implementation of educational change. Schools do not and cannot provide a total educational experience for students. The students' parents, neighbors, friends, and peers *all* powerfully influence the educational processes and outcomes. To the extent that schools work with these other groups and coordinate the total educational process toward a unified common goal, then schools will effectively accomplish their societal mission. Where conflicts develop between the schools and the interests of the home or community, there will be poor learning on the part of students and an eventual replacement of public schools on the part of the community.

It is therefore not a question of *can* a school system adopt career education without community involvement, but rather of *how can* school systems create sufficient public interest and cooperation to initiate career education. More than any other recent curriculum change, career education is extremely dependent on public involvement if it is to succeed at all.

□ The introduction of a comprehensive career education curriculum into a school system is a significant decision towards change. This change will affect the lives of almost everyone in the community: students, teachers, parents, counselors, businessmen, religious leaders, government officials, community activists, industrialists, workers, and others. Like the ripples in a pond moving outward to touch ever widening circles, career education will necessitate community involvement whether school officials plan for it or not. There is no way of bringing relevancy into our school system without simultaneously opening up our schools to the real world that surrounds them. At the very least, the community is going to want information.

What is career education? How will it affect my child? Who is going to benefit from this change and how? Why are the public schools moving toward career education? Questions, criticisms, debate, and rhetoric will all be part of the community's reaction to career education. People are going to demand to know more and more about career education as the meaning of the change becomes more apparent, as the influence of career education pervades the curriculum, as career education influences the students' life styles, and as career education has an impact upon the labor market.

An awareness of the school's dependence upon its environment requires an administrative posture that goes beyond "public relations." The words "public relations" suggest practices that leave the organization intact or unchanged, using routine devices for smoothing over difficulties with particular groups. But when an enterprise becomes aware of a more profound dependency on outside forces, it realizes the need to create a deeper public understanding and commitment for its program. This is what is required for community relations for career education.

If the school district really wants career education then it must be prepared to tell people in a meaningful way about career education. The district must be

The Implementation of Change

The question is "how"

Introducing the Career Education Curriculum

Community reaction

Community relations

willing to bring community people into the classrooms to show career education in action. Educators have to honestly admit that they do not have enough knowledge to do the career education job themselves and demonstrate their openness to the public. We've got to let the community know that career education is not just something for schools, but that it is something for the *whole* community. Then we need to tell people more about career education.

□ If the first step is informing the public about career education, then the immediate second step is to help each sub-group (parents, business, etc.) identify its role in implementing career education. Career education is a program for activists—it requires active public support and this means that community relations must “turn on” the community to career education. Strategies need to be laid out so that everyone can become a part of the career education process.

I think that it is clear by now that this kind of public information campaign goes far beyond any public relations efforts centered in the use of mass media. Personal contact and interaction will be the foundation of our initial public information efforts. We need to create trust, and open up two-way communications—this means eye-to-eye contact between the school personnel and the public. If we can supplement this kind of personal effort with prudent uses of mass media, then we will not only inform people about career education, but we will gain their understanding and commitment to it.

□ Career education requires a great deal more than an informed public. Career education requires a long-term partnership between the school and its committed public. It means a sharing by school officials of their traditional prerogatives in decision-making. Schools alone cannot make career education a viable force in American education—community cooperation is necessary.

Once we are able to commit the public to career education, then we must provide them with meaningful involvement opportunities. This means that school officials must be able to suggest creative and effective ways in which parents, students, civic groups, business persons, and others can participate in implementing career education. It also means that teachers and counselors will need to be oriented in the effective use of outside resources.

Because career education presumes to relate school work to real work, it is essential that out-of-class learning become an integral part of career education. No longer can schools rely on just simulating reality—now students will have to be constantly introduced to the reality itself.

From kindergarten through high school, students will be learning from direct contacts with the real world as well as through classroom activities. Community people will aid in teaching youngsters about jobs, life styles, and adult roles. Students will be exploring careers “on the spot” in manufacturing plants, supermarkets, professional offices, and department stores.

In order to provide the needed inputs from the community (ideas as well as resources), schools must plan for community involvement in their career education program. This may mean establishing advisory councils and steering committees, using community volunteers in the classrooms, arranging for students to work on jobs in the community, and other as yet unexplored possibilities. Local schools must create a new community relations program that is

Honesty

A Program for Activists

Personal contact with the public

A Long-Term Partnership

Role of the community

Out-of-class learning

*Advisory councils, steering committees,
and volunteers*

designed to merge the school and the community into one unified effort directed toward providing all students with quality comprehensive career education.

School systems have neither the faculties nor the facilities to provide adequate career education for their entire clientele. Furthermore, they do not have the out-of-school knowledge to realistically adapt the curricula to career education. Therefore, school systems which are serious about career education must make advantageous use of the community's resources and knowledge. It is literally impossible to provide any validity for career education without utilizing community leadership and resources. It is impossible to establish a solid foundation for career education without sharing the responsibility with the community.

□ If there is a strong commitment to public partnership, then a school district has to proceed to organize and staff a community involvement program. It is important to recognize, however, that the commitment to public partnership must become the commitment of all personnel in the system. The assimilation of this commitment is not the sole responsibility of the community relations personnel. It is the responsibility of the staff development component and other components as well. The development of this commitment cannot be delegated to the community relations staff and then be forgotten. If this happens, the concept of public partnership is doomed to failure, and career education will fail with it.

Therefore, everybody involved with career education must become a community relations "expert." Everyone should learn where and how community relations influences his specific role and proceed to incorporate it into curriculum units, guidance programs, information systems, and evaluation as community involvement is required to make career education work.

But, on the other hand, if community relations is considered to be the responsibility of everyone in general and nobody in particular, then career education is also in trouble. A competent staff of people is necessary to coordinate, centralize, expedite, monitor, and evaluate the community relations activities of the total system. A department of community relations must be established, if it does not already exist, to develop and maintain the public partnership.

□ The job of the community relations component is to develop a strategy for informing and involving local community groups in the career education programs. Anyone who has considered the multitude of sub-groups and special interests found in most communities realizes that this is not an easy task. Many people will eventually be affected by career education. Community people will need to become involved in career education, though most of these activities must be both planned and coordinated by the school systems themselves.

In order to begin to create this base of support, the schools need to set priorities in terms of their community relations efforts; otherwise, the limited resources they have will be dissipated in a multitude of unconnected projects. But how shall we decide what focus to give our community relations program?

The nature of the change process gives perhaps the best clue to answering this question. If we are concerned with the community implications of career education curriculum innovations, then why not link our community relations efforts to this change phenomenon.

Utilizing community resources

Organization and Staffing

Career educationists as "experts"

Coordinating community relations activities

A Community Involvement Model

Setting priorities

Statement of Ownership, Management, and Circulation

(Act of August 12, 1970: Section 3685. Title 39. United States Code):

1. Title of Publication: **The New Outlook for the Blind.** 2. Date of Filing: October 1, 1973. 3. Frequency of Issue: Monthly—except July and August. 4. Location of Known Office of Publication: 15 West 16th Street, New York, NY 10011. 5. Location of the Headquarters or General Business Offices of the Publisher: 15 West 16th Street, New York, NY 10011.

6. Names and Addresses of Publisher, Editor, and Managing Editor: Publisher, American Foundation for the Blind, 15 West 16th Street, New York, NY 10011; Editor, M. Robert Barnett, 15 West 16th Street, New York, NY 10011; Managing Editor, Mary Ellen Mulholland, 15 West 16th Street, New York, NY 10011.

7. Owner: American Foundation for the Blind, 15 West 16th Street, New York, NY 10011 (a nonprofit New York corporation). 8. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities: None. 9. Optional: Does not apply. 10. The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during preceding 12 months.

11. Extent and Nature of Circulation:

	Average No. Copies Each Issue During Preceding 12 Months	Actual Number of Copies of Single Issue Published Nearest to Filing Date
A. Total No. Copies Printed	4,084	4,212
B. Paid Circulation		
1. Sales Through Dealers and Carriers, Street Vendors and Counter Sales	0	0
2. Mail Subscriptions	3,334	3,490
C. Total Paid Circulation	3,334	3,490
D. Free Distribution by Mail, Carrier or Other Means		
1. Samples, Complimentary, and Other Free Copies	305	355
2. Copies Distributed to News Agents, but Not Sold	0	0
E. Total Distribution	3,639	3,845
F. Office Use, Left-over, Unaccounted, Spoiled After Printing	445	367
G. Total	4,084	4,212

I certify that the statements made by me above are correct and complete. (Signed) Mary Ellen Mulholland, Managing Editor.



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRAILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRAILON*

MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRAILON DUPLICATOR

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master . . . original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called BRAILON. . . BRAILON is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* BRAILON is a registered Trademark owned by American Thermoform Corporation

Since most large scale changes of this nature are adopted through an incremental approach, it was reasonable to assume that career education would likely follow this pattern. This means that different community groups will be affected at different times. It also means that fewer community groups will need to be involved in career education during the initial stages of the change; as the change accelerates and permeates the total school system, the need to include the community increases proportionately.

Incremental approach

The first task of the community relations component should be to design a program to establish a solid base of support among those people most directly affected by career education—parents, students, and some special interest groups. At the same time the community relations component should lay the groundwork for expanding community involvement as career education grows. This might mean initiating some low-profile publicity through the local press, contacts with various civic organizations, and tentative formulations of working arrangements with the business community.

Establishing a solid base of support

At this initial stage the community relations program should focus on person-to-person contact. Public schools need to explain career education in a way which communicates how this new concept purports to help the students. This means that more than talk is needed. People should be allowed to see some career education in action. The public should be encouraged to discuss career education with the teacher or the principal. The school should help people identify the role they can play in career education.

Focusing on person-to-person contact

This need is particularly acute in the case of the parents whose children will require special career education classes. With these parents, our schools have to move quickly beyond the information stage and into a cooperative involvement stage. At the very least, career education will require parental support in the home, otherwise conflicts will arise between the school and the home, with the student undoubtedly the loser.

□ Beyond the need for support of career education in the home lies the requirement of having the parents assist the career education cause in the rest of the community by helping to break down the remaining occupational barriers which still face handicapped people no matter how well they are trained. In this regard, students and their parents are the school's primary constituency and they can be most effective in expanding the career options of America's handicapped children. If students and their parents don't actively support career education, how can anyone realistically expect the more removed community sectors like big business, big government, and the general taxpaying public to be concerned with promoting greater career opportunities of our children?

Career Education and the Handicapped

But mere parent support is not enough. Other groups must be informed and involved in career education. The school cannot afford to ignore these groups because as career education spreads, their roles will eventually become more important. So while the school should present a low profile during the initiation of career education, and concentrate on fostering the support of parents, it also must offer some involvement and information to the other target publics (e.g., the business community) and special interest organizations (e.g., the society for the blind). These groups should demand increasing attention as the impact of career education expands. If local schools cultivate the interest of these groups

Special interest organizations

When it comes to Electronic Visual Aids for the Partially Sighted, Why Choose Visualtek?

Here are **FOUR** good reasons:

1 THE BEST PRODUCTS
Highest quality *consistently*, maximum flexibility in usage because of 'tailored configurations' to meet the needs of each individual user or agency, unexcelled versatility.

2 SERVICE AND SUPPORT
Not only when there's an occasional equipment problem, but also in a variety of other ways; support of organizations like AAWB, NFB, and ACB; free literature in any quantity; program participation at all levels; and advice and assistance to obtain maximum benefit from your electronic visual aid. We've even serviced our major competitor's equipment, for a major government agency, when they needed prompt and effective repair of a malfunction!

3 LEADERSHIP AND COMMITMENT
Visualtek was founded almost three years ago with the primary objective of "helping the partially blind to become partially sighted", and Visualtek has followed

through on this commitment by being the first to develop and produce a Typewriter Accessory for electronic visual aids, Margin Stops, Forward Viewing ("blackboard viewing"), and a variety of other useful features and accessories. But we didn't stop there; the latest result of Visualtek's extensive research and development activities is the Miniviewer, a product for which no comparisons can be made because there is nothing like it! This is *commitment!*

4 HIGH VOLUME AND LOW PRICES
With over 6,000 square feet of space for production of electronic visual aids (and related administrative functions), Visualtek has achieved the highest production volume of any supplier of electronic visual aids, and has *lowered its prices* to pass along the resulting savings to its satisfied customers. With some configurations starting at \$895, Visualtek offers the same savings to *all* its customers, not just a favored few who can negotiate for low prices. We've worked hard to earn our reputation, and we'll work harder in *every single case* to make sure it isn't tarnished . . . that's a promise.

These are the reasons we say, with pride . . .

VISUALTEK *Helping the partially blind to become partially sighted!*

WHERE IS YOUR NEAREST VISUALTEK REPRESENTATIVE?

Arizona: Phoenix
California: Sacramento, San Francisco Bay Area, Los Angeles, San Bernardino, Santa Barbara, San Diego
Connecticut: see New England
Delaware: Wilmington
Florida: Miami, St. Petersburg, Jacksonville, Tallahassee
Georgia: Atlanta
Hawaii: Wailuku *
Idaho: Boise *
Illinois: Chicago, Rockford *
Indiana: Fort Wayne
Louisiana: Baton Rouge, New Orleans
Maine: see New England
Maryland: Baltimore
Massachusetts: see New England
Michigan: Grand Rapids*, Detroit*
Minnesota: Milwaukee
Mississippi: Jackson
Missouri: St. Louis
New England: Boston
New Hampshire: see New England
New Jersey: New York City, Philadelphia, Park Ridge
New Mexico: Albuquerque*, Santa Fe*
New York: New York City, Albany, Syracuse*, Buffalo
Ohio: Cleveland, Dayton
Oklahoma: Tulsa, Oklahoma City
Oregon: Seattle
Pennsylvania: Philadelphia, Pittsburgh, Scranton
Rhode Island: see New England
Texas: Dallas, Fort Worth, Houston, Austin, San Antonio
Utah: Salt Lake City
Vermont: see New England
Virginia: Richmond
Washington: Seattle
Wisconsin: Milwaukee

**Demonstrations can be arranged in these areas, even though there is no resident Visualtek representative.*

All other areas listed, plus Ontario and British Columbia, are served by nearby Visualtek representatives.

from the start, then the local community relations efforts can move out from a strong base of parent support and begin concentrating on establishing new educational programs in industry sponsored by civic groups or special interest organizations.

☐ If career education can become an education reform program that is coordinated by the public schools but is not limited to providing only those learning experiences that can take place or be simulated inside of a schoolhouse, then career education could truly become a relevant method of training children for their life roles. To achieve this kind of goal will require the active support and interest of the whole community, combined with a new openness and responsiveness on the part of professional educators.

Summary

Technical Aids Resource Agency

The National Institute for Rehabilitation Engineering (N.I.R.E.), in Pompton Lakes, New Jersey, a non-profit agency, supplies technical aids to public and school libraries for the use of blind, partially sighted, and physically handicapped persons.

☐ Aids for the physically handicapped include two page-turning machines, a larger, adjustable-angle model, and a smaller, portable model. The larger machine is suitable for wheel chairs and for over-bed use. It accepts magazines and books, but turns the pages in one direction only, making it more suitable for pleasure reading than for student reading. The smaller machine, which accepts books, and up to medium size magazines, is more suitable for student use, since it turns pages in either direction.

☐ The visual aids are in two main categories, those intended for loan, and therefore suitable for home use, and those designed for use in the library. One home-use kit consists of a table stand, padded carrying case, and an optical, 2-power binocular lighted magnifier. Another home-use kit consists of a closed circuit television system which yields bright-image magnification up to 40 power, and is useful to those unable to read with optical magnifiers.

☐ The visual aids designed for use in the library are the "senior kit," for large libraries, and the "junior kit," for smaller libraries. The senior kit includes a large-screen tv reading system; a 9-inch diagonal size screen reading system; and various other readers and magnifiers. The junior kit, made up primarily of magnifiers of different strengths and styles, includes, in addition, a 17-inch diagonal size tv reading system.

Free training in the use of the devices is available to library personnel at N.I.R.E. and free delivery and training at the place of use is provided by N.I.R.E., if it is within 100 miles of N.I.R.E. A charge is made for delivery and on-site training at greater distances. More information on the aids can be obtained from the National Institute for Rehabilitation Engineering, Pompton Lakes, New Jersey 07442.

Page-Turning Machines

Optical Magnifier

Large-Screen TV Reading System

Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

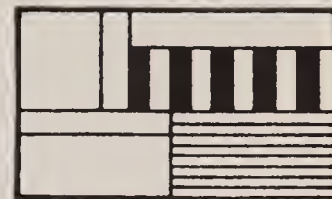
Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028



The Visually Handicapped Child in School, edited by Berthold Lowenfeld, New York: John Day, 1973. 384 p. \$16.00.

Reviewed by Rosemary O'Brien

Berthold Lowenfeld received his early education in Linz, Austria, and his Ph.D. degree from the University of Vienna. For more than 50 years, he has contributed significantly to the lives of blind children as their teacher, as superintendent of the California School for the Blind for 15 years, as director of educational research at the American Foundation for the Blind, and as special education instructor at Teachers' College, Columbia University. He has been granted the two highest awards in this country for outstanding services to the blind, the Shotwell Memorial Award in 1965 and the Migel Medal in 1968. Author of many books and publications, his most useful to parents and educators alike was *Our Blind Children—Growing and Learning With Them*, published in 1956.

His latest book is intended to meet the need for a basic text for university training programs in special education (for teachers of the visually handicapped), rehabilitation counseling, social work, nursing, and parent education. Most of the contributors have worked in some area of education for the blind and/or teacher training for many years, and their expertise is widely recognized and respected.

Dr. Lowenfeld furnishes an excellent historical perspective for the field. In his chapter entitled Psychological Considerations, he seems to have updated and condensed much of the material in *Our Blind Children*, which has been so helpful to parents and teachers since 1956.

The theoretical framework from which major developments and practices have derived during the past 30 years has been ably presented by all of the contributing authors. Most recent emphases include the imperative for utilization of sensory perceptual abilities, for realistic psychological assessment of visually handicapped children, for meeting developmental

needs and the needs of multihandicapped children, and for life adjustment training.

Dr. Lowenfeld suggests rightly that a uniform, systematic nomenclature is needed in the field of mobility. While that concern is not explored in the Life Adjustment chapter, this presentation offers much instruction and guidance, as do those sections dealing with specific skill development. Inclusion of a suggested uniform vocabulary would be useful.

As a public school educator, I can only express my gratitude to Dr. Lowenfeld and all of his contributors to this book. It contains much basic information essential to the successful function of any teacher of visually handicapped children, and it should be a valuable reference in teacher training programs and for many parents as well.

One of the difficulties in producing current professional and technical materials is the time lapse between completion of the copy and actual date of publication. For this reason, some more recent innovative developments are not included in this text. References are excellent and extensive but proportionately few date beyond 1970 since the material was then nearing completion.

Organizational patterns remain essentially as described although local schools are showing increasing flexibility in modification and, in some cases, combinations of two or more plans. Questions needing further exploration include discussion of some approaches that support successful implementation of various patterns. What are the essential determinants in the success of each plan? What are suggested specific roles and responsibilities for key personnel in each pattern, i.e., school principal, itinerant or resource room teacher, classroom teacher, school psychologist, etc.? What is needed administratively to set up and support a choice of services? What are some effective case-finding procedures requisite to the establishment of alternative program choices? What has been done or might be done to establish early childhood services for very

young visually handicapped children and their parents? What is being done to provide social services and counseling for parents from the moment of diagnosis/or impact?

If I accept the premise that this book is intended to provide students with some of the basic skills to enter the field and work with visually handicapped children, then some important questions regarding application arise. Perhaps study questions, suggested activities, and projects at the end of each chapter would provide students with some means of effective study and utilization. The beginning teacher who reiterates in anguish, "But teaching is nothing like I expected it to be!" is, unfortunately, the rule rather than the exception. For this reason, those in charge of teacher education programs and textbook authors should culminate any theoretical presentation with guidance in practical application. The integration of theory and practice is essential to assure the development of teaching competencies and of self-confidence in one's ability to work effectively with children.

Additional discussion and guided study should include: alternative approaches for teaching braille, specific modifications of methods and materials used in science laboratories and home economics labs and fundamental approaches to language development to meet the needs of nonlanguage multiply-handicapped blind children who have adequate hearing for receptive and expressive language.

Dr. Lowenfeld and the contributors are to be congratulated for this outstanding addition to the literature in this field. It cannot be faulted as an excellent presentation of historical perspective and theoretical background including detailed discussion of the major emphases in the education of visually handicapped children today.

Mrs. O'Brien is coordinator of the program for Visually Handicapped, Montgomery County Public Schools, Rockville, Maryland.

PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

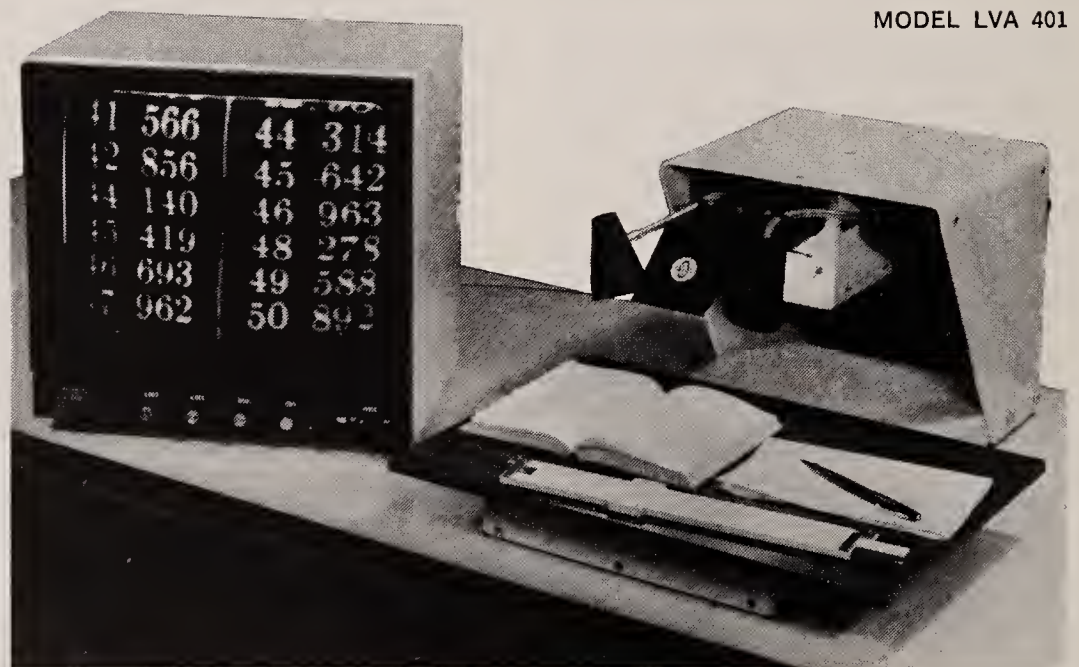
FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)



MODEL LVA 501



MODEL LVA 401



351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402



A special forum for individuals to respond in detail to material published in the New Outlook for the Blind or elsewhere, to present new ideas, or to raise issues which relate to the specialized field of work with blind and visually handicapped persons. Contributions should be 350-1,000 words in length.

Some Hints on Enjoyable Gardening

Harold D. Cardwell, Sr.

Horticultural therapy has surfaced as a valuable tool in the rehabilitation process and is used in shaping and fitting visually disabled persons to their environment.

The criteria for a visually disabled gardener are usually having lived in a rural agricultural community, being reared with a garden at home, being exposed to gardening at an adjustment center or formal training, and of course, liking to garden.

The rehabilitation process strives to instill self-confidence and independence in the adventitiously and/or congenitally blind student. Gardening is readily adaptable to this goal.

With proper training the individual can learn to accomplish many of the achievements of his sighted counterpart. In his home environment he may perform many of the tasks of lawn and garden care, including trimming hedges, watering the lawn, growing flowers or vegetables and other related tasks. These accomplishments not only establish a feeling of autonomy but also establish a common basis with other gardeners. Another major benefit of gardening activity is its effectiveness as a weapon to combat emotional problems or physical tensions.

Now let us turn to technique.

Basic gardening methods are universal and are described in gardening books available in print, braille, and talking books. I shall concentrate on some specific techniques and devices that blind gardeners can use.

The organization and familiarization with gardening tools and the gardening

environment is of first importance. The prospective blind gardener will already have developed personal organization habits that can now be adapted to organizing a garden environment.

A work bench is needed at which the student can perform the initial steps of planting. The first hours at the bench should be devoted to learning tactile identification of tools and media.

The identification of growing media probably requires a special approach. In my rehabilitation work, I have devised a technical aid to teach students to identify, by touch, various basic growing media. The various media are placed in individual bowls, prearranged in a fixed position. Braille markers can be used to identify the compounds. With training and experience the students will be able to identify the compounds by texture alone. I use agricultural perlite, peat, sharp sand, topsoil, compost, sphagnum moss, sawdust, and shredded bark. I find this method especially useful when instructing about greenhouse operations.

Pressed peat pots used for seeding and rooting, artificial soil cubes, and other man-made growing media are readily available in cellular units, and may be adapted to fit the peculiar tactile needs of the blind gardener for organization and recognition.

Plastic tags imprinted with braille words can also be used to aid in identification of various objects.

With practice and patience the gardener will be able to identify all of his plants by their distinctive characteristics; in particular, leaf shapes, textures, raised venation, and odor (if any) should be learned. Crushed leaves sometimes emit an odor peculiar to the particular species of plants from which they come, for example: geranium, pittosporum, and camphor. Methods of selecting which plants to grow are limited only by geographic location and the gardener's desire or imagination.

To help organize a garden, I employ a special modular gardening unit: a wooden

rectangular frame, built of pressure-treated two-by-fours, that is placed around the plot of ground to be cultivated. The frame acts as a guide and support for the gardener. I have found that a six-foot width allows for a comfortable three-foot working distance in the garden from each side of the frame. I also have found that the frame becomes unwieldy if it is greater than sixteen feet long. Strings stretched at a spaced distance from each other across the frame serve as a tactile guide for planting and maintaining straight furrows. Clothespins or braille markers on the strings may be used to locate specific plants in the garden. The frame may be left in place to enable the gardener to locate the garden easily. If desired, the frame may be removed and the garden would appear neat and orderly.

Various methods may be used for larger plots to grow vegetables: stakes at either end of a row connected by a rope, or string six inches off the ground help keep the rows straight. Wind chimes or Swiss bells may be used to help locate various points in the yard.

For year-round gardening, a small greenhouse may be used and this adds to the advantage of the blind gardener because bench growing is advantageous for mobility and location. It may be used in conjunction with a specialized hobby, such as bonsai, hydroponics, terrarium, topiary in containers, espaliering in containers, sprouting seeds to add to Oriental foods, container gardening, grafting, dwarfing fruit trees in containers, herb gardening, bulb gardening, hanging baskets, tropical plants and totems, annuals, vegetables and fruits, strawberry islands or urns.

Or the visually impaired may become enthusiasts in many areas, such as camellias, gardenias, geraniums, roses, palms, and flowering trees.

Tools should include short-handled modular garden tools—spade, trowel, hoe, cultivator, and scuffle hoe. The tools I use are no more than 18 to 30 inches in length.

OPTISCOPE®

Illuminated Enlarger System

MODEL C

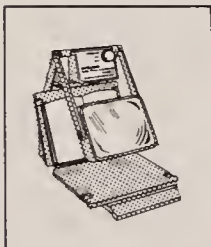
see any print
ILLUMINATED
and **ENLARGED**
in black and white
or full color

**A MORE
SELF-SUFFICIENT LIFE
FOR THE PERSON
WITH LOW VISION**

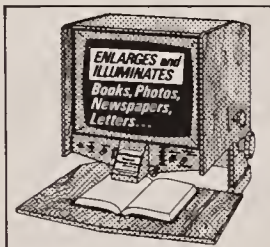
\$295

f.o.b. Hempstead, N.Y.

Also available from Opaque Systems Ltd.



Better Vision
Lens System
MARK V



Electronic
Enlarger System
ELECTRO CC 5000

The Optiscope Illuminated Enlarger System-Model C is a *new medical instrument* that now enables thousands of partially sighted persons and persons with low-vision capabilities to read books, newspapers, magazines and personal letters, or to view treasured photographs. All in black and white and full color.

The Optiscope projects an illuminated image on a large 9 in. x 14 in. polarized screen and the unique OPTILITE Comfort Control regulates the illumination for one's personal comfort. The unit is compact, portable (only 14 pounds) and simple to operate.

Also available from Opaque Systems Ltd., is the Better Vision Lens System-Mark V with the Optilite Comfort Control and the Electronic Enlarger System Electro-CC5000, a single unit, compact, self-contained closed circuit television system.

Write or call to order any of these low-vision aids or for additional information and color brochures.

Copyright ©1973, Opaque Systems, Ltd., Hempstead, N.Y. Patented other U.S. and foreign patents pending. Specifications and prices subject to change without notice.

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

From the backyard garden or hobby greenhouse, a blind gardener can enter a world of income supplement, employment, or owning his own business.

Vocational training can begin in a commercial greenhouse. A method of greenhouse orientation can be used, based on the face of a clock. This is similar to the present method of locating food on a dinner plate. A particular point in the greenhouse could be established as a fixed point on the clock, for example, 12 o'clock would be the front of the greenhouse. From this point, directions to other points in the greenhouse could be given.

Another technique that may be used is the overhead cord trailing technique (trail safety check). This is a series of cords hanging from wire hangers at arms reach above a person's head, with one cord leading to drinking fountain, one to tools storage, etc.

Other useful locators are braille markers on benches, raised Roman numerals to identify benches, and sound locators, such as fans, heaters, and aspen pads.

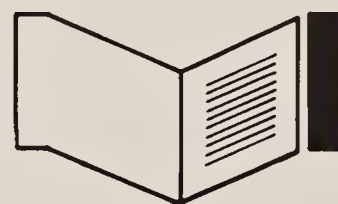
By exposing the visually disabled to the various methods and techniques of gardening, a whole new world of physical and spiritual enrichment may evolve. From

garden hobbies to horticultural employment, it is a world of confidence, pride, and satisfaction.

The limits of opportunity for the blind gardener extend only to the end of his imagination and desires. It is possible for a blind person to have a rewarding hobby and even a vocation—if the desire is there—in the realm of horticulture.

Mr. Cardwell is a registered landscape architect and has been a horticulture instructor at the Florida Council for the Blind, Daytona Beach.

Current Literature



A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

Independent Living Without Sight and Hearing, by Richard Kinney. The Hadley School for the Blind (700 Elm Street, Winnetka, Illinois 60093), 1972, 102p. \$3.00. Ink-print edition of the basic textbook used for the correspondence course offered by the Hadley School for the Blind to deaf-blind persons throughout the world. The author, who is the executive vice-president of the Hadley School, is himself deaf-blind.

The Education of the Visually Handicapped; Report of the Committee of Enquiry appointed by the Secretary of State for Education and Science in October, 1968. London, Her Majesty's Stationery Office, 1972, viii 154p. £1.00. (Order from Pendragon House, Inc., 899 Broadway Avenue, Redwood City, California 94063). Referred to as the "Vernon report" (for the Committee Chairman, Professor M.D. Vernon) this study was undertaken "to consider the organization of education services for the blind and the partially sighted and to make recommendations." The report covers organization of schools,

teacher training, curriculum, teaching aids, etc. for the visually handicapped in England and Wales.

Physical Education and Recreation for the Visually Handicapped, by Charles E. Buell. American Association for Health, Physical Education, and Recreation (1201 Sixteenth Street, N. W., Washington, D. C. 20036), 1973, 67p. \$2.95. Dr. Buell has divided his book into three sections. Part I "What Physical Educators and Recreation Specialists Should Know about Blindness," Part II "Activities for Visually Handicapped Children", with Part III being a useful 10 page annotated bibliography.

The Optacon. *The New Beacon* (Royal National Institute for the Blind, 224 Great Portland Street, London WIN 6AA, England), Vol. 57, No. 674, June 1973, p. 141-146. Editorial concerning the report on the first year of a training program being conducted cooperatively by St. Dunstan's, the Royal National Institute for the Blind and the Research Centre for the Education of the Visually Handicapped at Birmingham University to discover the practical value of the Optacon for blind people of varying ages in Britain.

A New Method of Vision Care Delivery, by Aran Safir, Casimir Kulikowski, Annemarie F. Crocetti, Maria I-Hwa Kuo and Kurt Deuschle. *Health Service Reports* (U.S. Health Services and Mental Health Administration, Room 4A-54, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20852), Vol. 88, No. 5, May 1973, p. 405-415. Report on a pilot study to assess the ability of paramedical technicians to measure refractive errors correctly by means of the ophthalmometron, a recently developed automatic refracting instrument. Reprint requests should be addressed to Aran Safir, M.D., Mount Sinai School of Medicine, Fifth Avenue at 100th Street, New York, New York 10029.

Profile of Blind Persons. *Statistical Bulletin* (Metropolitan Life, One Madison Avenue, New York, New York 10010), Vol. 54, July 1973, p. 9-11. Brief report based on recently issued 1970 figures from the 16 states in the Model Reporting Area for Blindness Statistics.

The Blind Play Piano, by Mimi Cunningham. *People* (North Carolina Department of Human Resources, 325 N. Salisbury Street, Raleigh, North Carolina 27611), Vol. 1, No. 2, Summer 1973, p. 20-21. Short arti-

ARE YOU READING SOMEONE ELSE'S NEW OUTLOOK?

For only six dollars a year you can make sure that you don't miss a single issue.

Monthly, except July and August
Print, recorded, or braille edition

\$ 6.00 for one year
\$11.00 for two years
\$16.00 for three years

New Outlook for the Blind
15 West Sixteenth Street
New York, New York 10011

Classified Listings

Rates: Non-display—\$2.00 per line (minimum: \$10.00); Display—\$13.00 per column inch (minimum: one inch). Anonymous, box-numbered ads are only accepted for personnel listings. Advertising is subject to editorial approval. A rate and information card is available on request. All correspondence should be directed to the Classified Advertising Department, New Outlook for the Blind, 15 West 16th Street, New York, N.Y. 10011.

AIDS AND APPLIANCES

Instruments, Recreation Equipment. Complete catalog on request. Science for the Blind, Bala-Cynwyd, Pa. 19004.

Braille Watches. Made in Switzerland. Wide selection of standard and deluxe models. From \$19.95. Catalog in print or braille sent on request. Aids and Appliances Division, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011.

Aud-a-Ball. Sound-source recreation ball for the visually limited. Catch it, kick it, throw it. Locate it by sound. Science for the Blind, Bala-Cynwyd, Pa. 19004.

CATALOGS

Science for the Blind—Catalog on request—221 Rock Hill Road, Bala-Cynwyd, Pa. 19004.

International Catalog of Aids and Appliances for the Visually Impaired, edited by Leslie L. Clark. 224p. \$2.00. Publications Div., AFB, 15 W. 16th St., New York, N.Y. 10011.

ORGANIZATIONS

JOIN AEVH!

The Association for Education of the Visually Handicapped offers three publications, conferences at the national, regional, and local levels, and opportunities for communication with fellow professionals interested in the education of visually handicapped children. For information write AEVH, 1604 Spruce Street, Philadelphia, Pa. 19103.

A.A.W.B.

New services provided by the American Association of Workers for the Blind are outlined in the September 1973 issue of *News and Views*. For further information regarding membership in AAWB for professional growth and communication write to the AAWB, 1511 K Street, N.W., Suite 637, Washington, D.C. 20005.

EVATONE THIN VINYL SOUNDSHEETS... LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

cle about the music department at the Governor Morehead School in Raleigh, North Carolina.

On Being Helped and Helping Others. *Tennessee Public Welfare Record* (Department of Public Welfare, 410 State Office Building, Nashville, Tennessee 37219), Vol. 36, No. 3, July 1973, p. 56-58. Question and answer interview with Robert Utley, a 30-year-old blinded Tennessee veteran, who has recently been appointed as a field representative by the Blinded Veterans Association. He will be working out of San Francisco and describes his job as acting "as a catalyst between Veterans Administration and the community resources in the western part of the United States."

Getting It Together, by Martha Walker. *Tennessee Public Welfare Record* (see address above), Vol. 36, No. 3, July 1973, p. 59-61. Brief report on the special program for the visually handicapped at the Institute of Human Resources of Knoxville, Inc.

The Role of Mental Imagery in the Free Recall of Deaf, Blind and Normal Subjects, by Ellis M. Craig. University Microfilms, Inc. (300 North Zeeb Road, Ann Arbor, Michigan 48106). Doctoral dissertation, University of Alabama, 1971, vi + 130p. Order #72-8421, \$10.00. Word lists were presented on either film or record to 40 college students, 20 deaf adolescents, and 20 blind adolescents.

Performance of Normal, Deaf, and Blind Children on Measures of Auditory Ability and Oral Form Discrimination, by Stephen C. Larsen. University Microfilms, Inc. (see address above). Doctoral dissertation, University of Kansas, 1971, vi + 61p. Order #72-11,709, \$10.00. Study investigated auditory ability and oral form discrimination of individuals with varying degrees of development in speech and language skills for the purpose of obtaining information as to how children process oral kinesthetic and auditory cues when learning language.

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind prepared by the editors.

Aging

For Patient's Sake, by Mildred I. Moe. *Geriatric Care* (Drawer C, Loring Station, Minneapolis, Minnesota 55403), 1972. 61p. \$4.95. Examines various aspects of geriatric nursing. Chapters included are "Philosophy of Geriatric Nursing," "Nurse-Patient Relationships," "The Concept of Active Nursing Care," and "Transfer of Patient Information and Continuity of Care."

Relocation of the Elderly, by Beverly A. Yawney and Darrell L. Slover. *Social Work* (National Association of Social Workers, 49 Sheridan Avenue, Albany, New York 12210), Vol. 18, No. 3, May 1973, pp. 86-95. A discussion of some of the factors in relocating which cause stress for older people, and suggested means for reducing this stress.

Transportation and Aging; Selected Issues, edited by Edmund J. Cantilli and June L. Shmelzer. (Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Stock No. 1762-0042. 208p. \$1.75. Social scientists, gerontologists, and transportation planners met in Washington, D.C. in

May of 1970 to discuss the mobility problems of the elderly. The resultant papers and recommendations are presented in this publication, which includes figures and tables.

Pamphlets

If You Want Air Time, prepared by the Public Relations Department (National Association of Broadcasters, 1771 N Street, N.W., Washington, D.C. 20036). 20p. For copies, organization chairmen should write to their nearest NAB member radio or television station.

Publicity Handbook. Prepared by the Sperry and Hutchison Company, Consumer Services Department (P.O. Box 935, Fort Worth, Texas 76101). 24p. This booklet, provided for the use of volunteer organizations, is available upon request at 10 cents per copy.

The Right Route to Helping Blind Passengers, a six-page folder of tips on helping visually handicapped travelers. Primarily for the use of bus drivers, the pamphlet is produced by the Cincinnati Association for the Blind (2045 Gilbert Avenue, Cincinnati, Ohio 45202).

Sex Education

Human Sexuality and the Mentally Retarded, edited by Felix F. de la Cruz and

Gerald D. Laveck. Brunner/Mazel, Inc. (64 University Pl., New York, New York 10003), 1973. 347p. \$8.95. Presents the edited proceedings of a conference, held in November, 1971, in Hot Spring, Arkansas. Several background papers are also presented.

Social Work

Social Worker's Contribution to Genetic Counseling, by Sylvia Schild. *Social Casework* (Family Service Association of America, 44 East 23rd Street, New York, New York 10010), Vol. 54, No. 7, July 1973, pp. 387-392.

Statistical Surveys

Administrators of Nursing and Personal Care Homes: Education and Training; United States, June-August 1969. National Center for Health Statistics, Health Services and Mental Health Administration, U.S. Public Health Service. *Vital and Health Statistics* (available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Series 12, No. 18, DHEW Publication No. (HSM) 73-1703, February 1973, iv + 71p. 95 cents. Data from the National Health Survey on the number of nursing and personal care home administrators by educational level attained, degrees and nurses' licenses held, and formal and informal training in administration.

■ The National Eye Institute has established a Special Visual Sciences Research Award Program to encourage newly-trained investigators to remain active in eye research during the formative years of their careers. Candidates for the Award should have received a doctoral degree or have completed research training or residencies not more than four years prior to the date a completed application is received by the National Institutes of Health.

For more information, write Scientific Programs Branch, National Eye Institute, National Institutes of Health, Bethesda, Md. 20014. Application kits are available from Division of Research Grants, National Institutes of Health, Bethesda, Md. 20014.

■ Referrals Workshop has developed career education materials for the physically handicapped in several areas including insurance and jewelry. For more information, write Referrals Workshop, Ford Road, Denville, N.J. 07834.

■ State civil service procedures in California have been modified to allow blind persons to use an abacus and/or braille writing devices when taking tests for state jobs. The modifications of the procedures were worked out by the State Department of Rehabilitation and the State Personnel Board.

■ Robert G. Utrup, a rehabilitation teacher for the Michigan Rehabilitation Center for the Blind, Kalamazoo, has compiled the lessons he has developed for a home mechanics course for blind persons into a manual. The manual, *Step by Step Guide for Teaching Home Mechanics to the Visually Impaired*, is available from the Department of Blind Rehabilitation, Western Michigan University, Kalamazoo, Mich. 49001. The price is \$1.50 per copy.

■ The U.S. National Institute of General Medical Sciences has awarded a grant to establish a Center for Human Genetics to the Yale University Medical School. The grant was awarded under a program to ac-

celerate research on the widespread problems of inheritable diseases and defects.

■ The *E-Z-I Cookbook*, a collection of recipes in large print, has just been compiled and published by the Eighth District, Massachusetts Women's Clubs Junior Membership.

The price is \$2.25 per copy plus 25 cents postage. Visually handicapped persons can receive the Cookbook as "Free Reading Matter for the Blind and Visually Handicapped" and so need not include 25 cents for postage. Orders should be sent to Mrs. Paul B. Surette, 7 Noval Avenue, Stoneham, Mass. 02180.

■ Southern Illinois University has developed an audio directory system to guide blind students from place to place on the campus. The system consists of sound stations which include a battery-powered device that emits a tapping sound and a brailled plaque indicating where streets and buildings are. Six sound stations are now in operation and ten more are planned.

■ Entries for the 10th International Literary Braille Competition sponsored by the *Jewish Braille Review* and the Jewish Braille Institute of America are now being accepted. The deadline for the Competition, which includes about \$5000 in prizes for original fiction, nonfiction, and poetry by blind persons, is December 31, 1973.

For complete Competition rules, write International Competition, Jewish Braille Institute of America, 110 East 30th Street, New York, N.Y. 10016.

Appointments

■ National Accreditation Council for Agencies Serving the Blind and Visually Handicapped: **Mrs. Muriel Whipple Hicks**, director of development.

■ New York Association for the Blind; **Jeanne Katz**, director of social work services.

■ American Printing House for the Blind: **Ralph E. McCracken**, editor; **Howard Oliver**, head of printing and educational aids.

■ Hadley School for the Blind: **Donald W. Hathaway**, president.

■ American Blind Bowling Association: **LeRoy F. Saunders**, president.

Awards

■ Pennsylvania Federation of Business and Professional Women, "Women of the Year:" **Nance Pugh**, director of field services, Pennsylvania Association for the Blind.

■ New York Association for the Blind, Lighthouse Award, **Dr. George Wald**, professor of biochemistry, Harvard University.

Coming Events

November 16-20 Association of Schools of Allied Health Professions, Boston.

November 27-December 1 National Easter Seal Society, Annual Convention, Washington, D.C.

December 4-7 Council for Exceptional Children, Northeast Regional Conference, Boston, Massachusetts.

December 7-9 Association for Advancement of Behavior Therapy, Seventh Annual International Convention, Miami Beach, Florida.

1974

January 28-February 1 Council on Social Work Education, Atlanta.

April 14-19 Council for Exceptional Children, 52nd Annual International Convention, New York City

May 19-24 National Conference on Social Welfare, Cincinnati.

May 24-25 International Association for the Prevention of Blindness, Conference on the Prevention of Impaired Vision and Blindness, Paris.

June 24-29 Association for Education of the Visually Handicapped, San Francisco.

THE MEANING OF BLINDNESS



Attitudes toward Blindness and Blind People
by Michael E. Monbeck

Among the responses elicited by blindness is the irrational feeling that blind persons are mysterious, magical, and to be feared. What are the origins of such responses? How can they be altered? Why is the typical reaction toward blind persons so peculiarly intense? These are some of the questions answered by this authoritative book, which is in essence a penetrating study of attitude formation. The author draws upon depth psychology to investigate the mythological or archetypal "meaning" of blindness, exploring the symbolism of light and darkness, the eye, and the loss of the eye or sight in order to determine the unconscious factors involved at the core of the attitude-toward-blindness complex. He provides an exhaustive review of the literature on blindness, a detailed analysis of attitudes toward blind persons, and some suggestions for altering these attitudes. Enormously useful to rehabilitation counselors, psychotherapists, pastors, and social workers.

224 pages \$6.95



INDIANA UNIVERSITY PRESS • 10th & Morton Streets • Bloomington, Indiana 47401

The American Foundation for the Blind
proudly announces its new film
Not Without Sight

A film which defines the major types of severe visual impairments, examines their causes, and illustrates how those with visual impairments can function.

AFB wishes to thank:

The Concordia Foundation whose grant made this film possible.

Those with visual impairments who appear in the film:

Adrena Baligian	William Gallagher
Steve Brown	Jim Jones
John A. Carvalko	Mort Schlein
Stephen Cochran	David Symons
Hazel Catino	Ruth Wartenberg
Mary Davies	

Those who advised AFB from the film's inception to its completion:

Eleanor E. Faye, M.D.	Louise L. Sloan, Ph.D.
Richard E. Hoover, M.D.	Ephraim Friedman, M.D.
Randall T. Jose, O.D.	Dagmar B. Friedman, M.S.W.
Arthur E. Keeney, M.D.	

Agencies cooperating with the AFB in making NOT WITHOUT SIGHT:

Lighthouse Low Vision Service, New York City
Rhode Island Association for the Blind
Carroll Rehabilitation Center for Visually Impaired
University of Alabama School of Optometry, Birmingham
Alabama Institute for Deaf and Blind
New York Association for the Blind
Arkansas Enterprises for the Blind

Finally, those who helped in producing the film:

Harvest Films:	Rachel Rosenbaum
Leo Trachtenberg	Bob Ipcar
Joshua Aronson	Charles Spranklin
Bernice Daskal	Ray Mansolillo
Janice Cummings	Richard Shore, A.S.C.,
Helen Worden	Director of Photography
Fred & Marjorie Maas	Mary Tucci, Editor
Vincent & Marie Vassallo	Samantha
Bob Long	

All inquiries about NOT WITHOUT SIGHT should be directed to the Public Education Division, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011.

THE NEW

Outlook

FOR THE BLIND

December 1973 Volume 67 Number 10

Modeling: An Effective Behavior Change
Technique for Teaching Blind Persons

Georgia Burleson

Teaching Oral-Aural Communication Skills
in a Rehabilitation Center for the Blind

Glenn Leavitt

How to Play With Your Partially Sighted
Preschool Child: Suggestions for Early
Sensory and Educational Activities

M. Adelaide Barry

An abstract geometric design featuring a large, irregular yellow shape on the left side of the page. This shape has several sharp, angular protrusions and indentations. To the right of this yellow shape is a large, white, irregular shape that also has sharp, angular edges, creating a complex, interlocking geometric pattern. The background is a solid light beige color.

THE NEW Outlook FOR THE BLIND

December 1973 Volume 67 Number 10

Articles

- 433 Modeling: An Effective Behavior Change Technique
for Teaching Blind Persons
Georgia Burleson
- 442 Creative Movement Classes for Visually Handicapped
Children in a Public School Setting
Rose Resnick
- 448 Teaching Oral-Aural Communication Skills
in a Rehabilitation Center for the Blind
Glenn Leavitt
- 454 Running Free: The Use of a "Running Cable" With Blind
Adolescents Who Function on a Retarded Level
Roberta Stephens
- 457 How to Play With Your Partially Sighted Preschool Child
Suggestions for Early Sensory and Educational Activities
M. Adelaide Barry

Departments

- 473 Hindsight
- 475 Current Literature
- 479 In Brief

Published monthly except July and August in inkprint, braille, and recorded editions by the Department of Information of the American Foundation for the Blind, Inc. Editorial and business office: 15 West 16th Street, New York, N.Y. 10011.

Designed and printed by Capital City Press, Montpelier, Vt. 05602.

Second-class postage paid at New York, New York and additional mailing offices.

Articles in the *New Outlook* are indexed in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.

Subscription information: \$6.00 one year, \$11.00 two years, \$16.00 three years; 10 percent discount on bulk subscriptions—ten or more subscriptions going to one address; foreign postage, 15c additional; single copies, 60c; back issues, 60c to \$4.00 according to issue.

The *New Outlook* is a magazine for professionals in service to the blind and an impartial forum for all views. Opinions expressed in signed articles are those of the author(s); likewise any advertisement is the responsibility of the advertiser. Neither necessarily carries the endorsement of the publisher. Manuscripts to be considered for publication in the *New Outlook* should be no more than 10-14 double-spaced pages in length and should be submitted in duplicate. A set of guidelines for contributors is available on request. Copyright © 1973 The New Outlook for the Blind.

Editor-in-Chief
M. Robert Barnett

Executive Editor
Patricia Scherf Smith

Managing Editor
Mary Ellen Mulholland

Associate Editor
Michael E. Monbeck

Assistant Editor
Freida Chapman

Advertising Director
Michael E. Monbeck

Modeling: An Effective Behavior Change Technique for Teaching Blind Persons

ABSTRACT: The application of Bandura's modeling techniques in working with a legally blind male in a residential facility for the mentally retarded resulted in improved attitudes and behaviors. The client was a 38-year-old institutionalized male with severe feelings of anxiety who had previously rejected most efforts to provide teaching services and had avoided social and interpersonal encounters. Through the primary sensory modalities of audition and tactility he "observed" the model perform fear-arousing rehabilitative behavior and gradually learned to perform the behaviors himself. Apparent significant decreases in anxiety and increases in social and interpersonal interactions resulted. The description and implications of this case study should serve as a guide to others interested either in the direct application of modeling techniques or an effective method to help overcome clinically debilitating emotions in blind clients. The results suggest a need for an operational definition of "observation" in modeling theory to incorporate other sensory modalities than vision.

Albert Bandura, a psychologist interested in social-behavioral learning theory, is the leading proponent of a technique for behavior change called "modeling" (Bandura, 1965, 1969, 1971). Modeling is a theory of cognitive learning. Today it is accepted as one of the most effective behavior change techniques used. Bandura (1969) has stated that all learning resulting from direct experiences can be accounted for on a vicarious basis by the observation of a model's behavior and the resultant consequences. In the application of traditional modeling theory, using diverse populations, the visual process is emphasized as the primary means whereby one "observes" a model and the resultant consequences of his behavior. Modeling is incorporated into our daily lives more than might be imagined. We do this sort of thing frequently with our own children. A familiar example of the father tasting medicine to convince his child to taste it serves to illustrate this point. The child perceives that his father experiences no negative consequences and, in fact, appears to enjoy the medicine. In this way the child learns that the medicine will not affect him adversely although he has not taken the medicine himself. The learning is thus cognitive since no overt response has yet been made. The significance of Bandura's work lies in the extreme effectiveness of the application of modeling techniques to diverse individual problems (Flanders, 1968; Ball, 1970; Bandura, 1971). Modeling plays an imminent role in reducing apparent anxiety, thus enabling the person to engage in activities resulting in the learning of new behaviors (Paloutzian, 1971; Ullman & Krasner, 1969; Wolpe & Lazarus, 1966; Lovaas, 1966; and Bandura, 1969).

Modeling, as a method of teaching blind persons, may be broken down into three phases which are not mutually exclusive. The primary sensory modalities utilized by the client in the present study were audition and tactile perception.

GEORGIA BURLESON

Mrs. Burleson is rehabilitation teacher, Mental Health-Mental Retardation Services, Texas State Commission for the Blind, Waco.

Modeling in everyday life

Modeling and teaching

The client uses what functional vision he has by attempting to see as much as he can of the model's performance. However, as described elsewhere in this paper, he can only occasionally see minimal movement, light, and color.

□ The specific behavior is modeled for the client. The goal is to bring about a reduction of anxiety in the client of the feared behavior. Over time, as the anxiety dissipates, the client responds by wanting to try to perform the task himself. During all phases of modeling, the client stays close to the model (teacher) at all times. The client's primary functional sensory modalities during Phase I are audition and tactile perception. Most importantly, the client cognitively responds primarily to verbal descriptions made by the model, but to other relevant auditory stimuli as well, such as the sounds of automobiles, movements of pedestrians, etc. For example, in mobility travel with the cane, the model first convinces the client to accompany him. He gives complete, vivid descriptions of what he intends to do and is doing.

How Modeling Works—Phase I

A sample description

I am putting on a blindfold now so that I will not use vision, but depend upon the cane for information concerning the route to the drugstore. Now, let me think. If I let my arm curve so that the cane is directly centered in front of me this will insure that I travel straight, and I won't veer too much to either side or fall off the curb. The most important thing is for me to use proper cane techniques so I will travel safely to my destination. I know I must touch the cane to my right as I step out with my left foot, and then touch left when my right foot is forward. This is how I make sure my feet are in coordination with the cane. OK, so if I walk to the corner and find the curb with the cane, and then square up, I'll be ready to cross the street when I hear the parallel traffic start to go. I will want to walk a little faster than usual so I will get across the street before the light changes again. If I walk down the sidewalk, then, to the next corner I know the drugstore is directly across the street in front of me. Now, I have a pretty good idea of how to get there. Shall we see if I can use this cane to travel safely to the drugstore? (Client says yes.) OK, let's start now.

The teacher then models the task as many times as necessary to alleviate the client's anxieties concerning the task. Usually two or three times seem to be sufficient. The route is further broken down into increments to prevent anxiety arousal and assure success. For example, the first experience may be the motions necessary to get to the corner. Additionally, the client takes the free arm of the model to prevent physical separation. There is continual verbal description and teacher-client communication and interaction during all phases.

□ The client has experienced significant anxiety reduction and has acquired motivation to attempt the task himself. The client now is emerging as the active participant. In essence, he wants to find out if he, too, can perform the task. During Phase II, audition and tactile perception are the primary sensory modalities utilized by the client. As in Phase I, the client's cognitive responses are vital. The procedure in Phase II is to transfer to the client the skill that the model has demonstrated. Thus, the client is predominantly active in this phase, whereas the model was predominantly active in Phase I. For example, the model demonstrates how to grip the cane by molding the client's hand in the proper grip while verbally describing how the cane should be held. Verbal descriptions

Phase II

include the method, as well as the purpose, for the procedure. The same method is used in describing and tactually demonstrating proper arc, foot-cane coordination, squaring up to make street crossings, listening and identifying traffic patterns, etc., until the client successfully travels the route to the destination, as modeled. The client follows the model's movement physically as the model demonstrates the various components of cane travel. Important processes in this phase are elaborate verbal description and tactile guidance. These help to insure that the anxiety does not recur and to assist the client in the development of self-confidence. The teaching is always at the client's own pace, in moderate increments and with the intention of attaining a series of successes. The teacher is using guided participation in teaching the client the previously modeled behavior. Phase II is also essential in accomplishing further anxiety reduction and increasing self-confidence in the client concerning his abilities. At first he wants to test his abilities, now he learns that he can, in fact, perform the behavioral task as modeled.

Tactual demonstration

□ The teacher and client are solidifying the changing roles and the client emerges as the dominant participant with increased motivation, self-confidence, and significantly decreased anxiety. The model now becomes secondary, and the client becomes increasingly more active. During Phase III, an "equality of performance" emerges in that the teacher (model) alternates with the client in performing the behavioral task. Conversation is on an open-communication basis and quite spontaneous as the model and client exchange information and share emotional feelings concerning the task. The function of the model is to provide positive reinforcement in the form of praise and encouragement, and to provide feedback to the client concerning the skills he has begun to acquire. The client's primary functional sensory modalities are, again, audition and tactile perception. In Phase III, anxiety largely dissipates and is replaced by functional learning of a behavioral skill previously feared and avoided by the client. Continuing with the example:

Phase III

Let's begin by traveling with the cane to the drugstore. You make all the necessary decisions and tell me about any observations you make or feelings you want to talk about. Also, I can help by showing you other things that may be useful if you should need help. When we return from the drugstore, I'll wear the blindfold. Be sure to check on me and help me use good cane techniques by putting your hand over mine and checking my cane grip, etc. If I have feelings I need to talk about or should need your advice, I know I can depend on your suggestions.

In this way, the client is cognitively perceiving throughout all phases of modeling the anxieties and frustrations experienced by the model, although the culmination of the total experience is success. This occurs gradually throughout each succeeding phase of modeling, as well as in completion of the total experience.

□ The present study concerns the use of modeling in rehabilitation teaching with a male client of the Texas State Commission for the Blind. A legally blind, institutionalized, 38-year-old individual residing in a facility for the mentally retarded has responded with remarkable success to modeling principles. Reflecting upon the teacher's first interactions with the individual some ten months

The Present Study

ago, his attitude and level of motivation and cooperation were quite poor. Serious consideration had been given to closing his case, and it was felt that he would not be a candidate for return to the community. The client refused to accept his visual or mental limitations and vowed never to touch a cane. After some limited work with the individual, while the teacher was a trainee, it was decided that perhaps a modeling technique, coupled with various other behavior modification techniques, would be feasible in working with the individual. The result was a phenomenal growth within the individual. He began to respond with maturity and to demonstrate consistent progress within the rehabilitation process. Hostility, agitation, and anxiety have now largely dissipated. The application of modeling procedures in this instance has culminated in drastic re-evaluation of this individual's potential and capabilities. He is now attending a rehabilitation center and upon completion of training there will return to the community and become a gainfully employed citizen. All this has resulted even though the individual has been institutionalized 26 years of his life. Some of the specific modeling techniques used with this client are discussed below. Use of the terms "observation," "seeing," or "looking at" in the following description refers to the fact that the client both relied on his residual vision and on his primary sensory modality—audition; he also utilized imagery in response to verbal description and tactile perception.

Modeling was first attempted in March 1972, when the client consented to receive an introduction to some pre-cane mobility training in a remote, private, instruction room. He observed the teacher, who wore a blindfold, engage in wall-trailing utilizing proper pre-cane techniques. He appeared to have a great deal of anxiety during the initial phase, but this gradually diminished over the ensuing days and weeks. Each new pre-cane skill was modeled in this way by the teacher before the client attempted the activity. During this first phase the client acquired the ability to effectively use pre-cane mobility techniques such as wall-trailing, voice-trailing, sighted guide, upper and lower hand and forearm travel, narrow passageway travel, and locating dropped objects. All these behaviors were acquired and executed with proficiency, pride, and the experience of success as he learned each new task.

□ In April, the client was encouraged to accompany the teacher as she engaged in some outside activities. Again he exhibited confusion, reluctance, and apparent anxiety. However, he came along, and the teacher, under blindfold, stated that she wanted to learn something about the campus and then attempted to walk under blindfold without a guide. After the teacher stumbled a few times, she asked if the client would allow her to take his arm and serve as her guide. The client complied and assisted the teacher to the pre-determined destination and then returned. The client then asked the teacher whether she felt "stupid" about making a fool of herself in public. She assured him that she experienced no such feelings and was interested only in learning mobility on campus. The client's response was, "Well, if you can do it, I can do it." This marked the beginning of a very positive series of responses made by the client in mobility training and other rehabilitation activities.

In April, May, and June, the shaky voice and physical trembling gradually

Pre-cane skills

Outside Activities

Sighted guide

diminished as the client engaged in mobility training on campus with a sighted guide. During this period the client learned the geography of the campus, including the locations of approximately 15 significant buildings. Following the teacher's modeling the client asked to use the blindfold to enhance his learning. His sense of direction and his orientation were excellent under these conditions. The client responded very well to environmental cues and learned to travel with a guide anywhere on campus. He was able to verbally describe and identify the destination even when alternate routes were taken. Toward the end of this period the client said that he now enjoyed training outside, looked forward to it, and preferred it to more traditional work in the instruction room.

By the end of June, he had not only learned the physical layout of the campus, but had also been oriented to the interior of two significant buildings. Using proper travel techniques inside a building was first modeled, with and without the blindfold, and then the client attempted these activities. Emphasis was placed on accuracy of travel techniques, reversals, and accurate identification of specific office areas. He was able to demonstrate proficiency in these tasks.

□ Early in July, the client agreed to allow the teacher to show him a few of the fundamentals of cane usage in a private instruction room. Again he was physically trembling and reluctant and agreed only to observe. The basic cane grip was modeled along with correct centering of the cane and the execution of a proper arc. Later in the month, proper foot-cane coordination was also modeled. Within only a few days he too wanted to try these techniques. A cane appropriate for the client's height and gait was secured, and the teacher continued to model the mobility techniques. By alternating the practice of basic skills the teacher and client practiced them together. However, he still refused to be seen in public with a cane.

In August, the client was relocated from the on-campus sheltered workshop, where he filled capsules with rings and other trinkets, to the downtown workshop. There he would work on the assembly of shopping bags for a commercial contract. This job change was considered a vocational promotion since considerable prestige and status are ascribed to the few individuals who are transferred downtown. Further, the downtown placement is viewed as a stepping stone to return to the community if the client functions satisfactorily there.

The client had experienced numerous successes in his rehabilitation training, the importance of which has been discussed by Zigler (1971). He had also reasoned that the modeling procedure was instrumental in helping him to feel more comfortable in new situations or those he had previously avoided. Personal counseling sessions included explanations of how the modeling technique worked and how it could be used even more in the future to help him learn outdoor cane usage as well as other skills.

He agreed to accept outdoor mobility training with the cane, and fundamental instruction using the cane in the downtown area was initiated. The blindfold was not initially used, but later modeling included its use. The client made steady progress in executing basic cane techniques and learned to attend to auditory cues. Simple travel patterns were introduced, but primary emphasis was placed on basic cane skills.

Campus layout learned

Cane Travel

Vocational advancement

Personal counseling

□ In August, September, and October, modeling was used to gradually introduce vocational information services and training for assembling a rubber mat made from strips of automobile tires in preparation for community placement. This was a sample product obtained from the Lighthouse for the Blind. The client was presented with the mat, its function was explained, and he was told that the teacher thought he might like to look it over and study its assembly. The various parts were described, and the teacher modeled the method for assembling the product. The client also wanted to try, so the teacher and client worked on the mat alternately, with and without the blindfold. At times the teacher would assemble a portion of the mat and the client would complete it. The negative feelings the client experienced when the mat was first introduced were related to the roteness and simplicity of the task. These feelings soon changed, and he began to experiment with the product. He devised ways of separating the strips into stacks of similar thicknesses, and he alternated the strips while assembling the mat to produce a more attractive and finished product. Mobility training and personal counseling services were continued during this time.

In early October, the possibility of the client attending a rehabilitation center and his return to the community was discussed, as his motivation, self-confidence, and cooperativeness all indicated the feasibility of such planning. He stated that he did not believe anyone would ever help him attain such a goal. Nevertheless, he seemed quite optimistic, and for the first time the teacher was able to perceive feelings of hope within the client.

In late October the client was notified of his acceptance at a rehabilitation center and was almost simultaneously offered a job in the community. Consequently he again experienced considerable anxiety and confusion about his future. When would the rehabilitation center want him to report for training, and how long would the employer hold the job open for him? Another complication which occurred at this time involved his dissatisfaction with certain aspects of his present job. The client could see little difference in putting rings in capsules, putting cardboard in the bottoms of shopping bags, or assembling rubber mats as the job in the community offered. In short, he was beginning to search for meaning in life, and yet his constant, long-term goal was still to be able to return to the community.

Job offer

□ In November and December, modeling was used again to solve two of the problems with the client's work in the downtown workshop. The first problem involved the client's reluctance to attempt assembling shopping bag handles, a more complex task, which would seem to offer him a greater challenge and make him happier and more satisfied with his current working conditions. The teacher convinced him to just come along and watch her attempt to assemble a shopping bag handle under blindfold and attach it to a bag. He agreed, but he spontaneously and adamantly refused numerous times to attempt this task himself. Interestingly, that week, the workshop was out of handles, and each morning the teacher looked to see if they had come in so that this activity could be modeled; on each occasion the modeling procedure to be attempted was discussed with the client. The handles finally came in on a Thursday, and the

Assembling Handles

teacher was not present when they arrived. The client's response was to independently work with the handles until he taught himself how to assemble them and attach them to the bags. Therefore, it seems that this is an excellent example of how modeling can occur on a purely vicarious or covert basis. The client's anxiety level was apparently reduced significantly enough by discussing the activity to be modeled to enable him to approach the task and work it through. It is likely that his previous successes with modeling influenced his willingness to attempt the task independently. The client related this experience to the teacher the next day with enthusiasm and pride.

A second problem involved the client's refusal to allow a barber, other than the barber on campus, to cut his hair. He angrily refused to see another barber and trembled with anxiety at the suggestion. Since a male model had been solicited in increasing his interest in wearing a necktie on a previous occasion, it was felt that a male model would be more appropriate and capable of modeling instructions to a barber about how he wanted his hair cut. The teacher, the male model, and the client visited a barber shop in the city so that the male model could demonstrate how to instruct the barber in a way that would increase the probability of obtaining an acceptable haircut. However, the client was trembling and apparently experiencing considerable anxiety. He sat within listening distance and attended to the procedure, but refused to stand near the barber chair in order to observe the procedure closely. The teacher attempted to allay his fears and told him of various considerations when going to a new barber, such as, obtaining the name of a good barber from someone who knows the community well, asserting oneself in giving explicit instructions about how the hair is to be cut, and being aware that most business establishments will try to "sell" you a \$6.50 hair style rather than a simple \$1.50 cut. The client was also informed that one is sometimes encouraged to purchase special shampoos and other grooming supplies that may not be wanted or needed. The client listened and took a close look at the male model after the haircut was completed, and expressed approval of the results. However, he still appeared to be experiencing uncertainty and anxiety about his own ability to communicate his desires independently and to be confident that they would be met.

This modeling session occurred the day before the client was scheduled to report for training at the rehabilitation center in another city, and the teacher felt concern about the apparent anxiety and hesitancy he still displayed. Therefore, another modeling attempt was undertaken at this time, but the teacher, although female, served as the model. The client agreed to accompany her to a beauty salon in the city—one with which the teacher had no familiarity—and the modeling of a haircut was again attempted. This time the client stood beside the teacher and listened and observed as the teacher instructed the stylist as to how the hair should be cut. The procedure required about one and a half hours since the hair also had to be curled, dried, and combed out, but the client attentively listened and observed. When he viewed the final results, he approved enthusiastically. Later that day he spontaneously stated with confidence that he felt he could give appropriate instructions to a new barber and felt that he would likely be satisfied with the results. Since the client started his training

Male model

Allaying fears

A second attempt

at the center January 3, 1973, the teacher has not at the time of this writing received information concerning his first haircut experience away from campus, but the staff at the center has agreed to inform the teacher of the results. Considering the prior success of modeling new or difficult behaviors, it is felt that the client's experience with a new barber will be successful.

□ Considering the various remarkable attitudinal and behavioral changes that have occurred while working with this individual, it seems that extensive generalization (Paloutzian, 1971; Bandura, 1971, 1969; Ullmann & Krasner, 1969) has occurred which may be attributed to his decreased anxiety level and his corresponding experience of successes in handling a variety of problem areas. Briefly a few of the derived benefits are discussed below:

The client is felt to be functioning at a significantly higher level than measured intelligence test scores indicate. This is evident from his significantly increased vocabulary and his capacity for verbal expression, cognitive functioning, and demonstrations of abstract thinking and reasoning.

The client has begun to engage in social activities for the first time in his life. He has taken trips with others to Six Flags Over Texas and the Texas Prison Rodeo; he has started going to dances and is now interacting with peers at other social gatherings. He has joined the teacher and others for luncheon off campus and now accepts refreshments such as coffee and soft drinks at social gatherings. In a telephone conversation with him at the center January 18, he related that he was dressing to attend a dance that evening.

The client has demonstrated a search for meaning in life while retaining a basically realistic view of his current capabilities. In this regard, he has also begun to reach out to others. He wants to secure a job in the community and "put the bread on the table." Yet he has asked that the teacher help him arrange to engage in volunteer work on Saturdays helping others, with problems similar to his own, to acquire the skills he has learned in his rehabilitation process. Another indication of his reaching out to others is the fact that he now expresses genuine interest and concern about his sister who is also a resident of the same facility and a client of this agency. Until recently, he totally rejected his sister and avoided being anywhere near her. It is noteworthy that one of his last statements to the teacher as she left him at the center was "Take care of my sister."

□ The modeling procedures used with this client seem to point to some very significant implications. First, modeling techniques should be effective with other blind or visually impaired individuals, and it is hoped that other rehabilitation workers will experiment in their application where appropriate. A second implication involves traditional modeling theory. The present study seems to indicate that a person can benefit from modeling, as Bandura suggests, on a cognitive level, but sight does not seem essential in order for a person to derive the potential benefits. The person's primary sensory modality and cognition seem to be important. "Observation" seems not to be limited to the visual sensory process and this term may require a broader definition. For example, the client involved in this case has classical retinitis pigmentosa in the terminal stages and bilateral cataracts. While he has some residual vision at times under

Results

Improved functioning

Socializing

Concern for others

Implications

good lighting conditions, his vision is extremely limited most of the time. His last ophthalmological examination in 1967 indicated that the client was able to see hand movement with both eyes at 12 inches. The ophthalmologist concluded that he saw "... no special point in re-examining this patient, since his condition is hopeless." Thus it would seem that populations of adventitiously blind individuals, those with visual conditions deteriorating to blindness, or others able to learn from guided participation along with cognition, audition, imagery, and tactile perception may benefit from the use of modeling.

Thirdly, it seems apparent that the modeling of typically "male" activities can be accomplished by a female in certain instances. This was illustrated in the description of the events concerning the haircut. Therefore, it seems that the sex of the model may have differential effects upon successes attained; if same-sex modeling fails to produce the desired change, perhaps opposite-sex modeling will. Fourth, the work done with the client indicates that he has acquired marked attitudinal and behavioral changes indicative of more adaptive functioning. These changes appear to have resulted from a sequential building of successful experiences and concomitant anxiety reduction which enabled him to engage in activities when he perceived no adverse consequences associated with the behaviors of the model. In this way, other classes of behavior are indirectly influenced, and this results in an overall improved level of functioning. Finally, while the modeling technique has been used with mental health-mental retardation populations, the teacher is unaware of any research or clinical reports utilizing modeling with blind persons. Therefore, the possibility that an entirely new realm of effective teaching and development as yet unexplored may be found in the modeling procedure.

□ In summary, the significance of this experience seems to be that this 38-year-old client, although institutionalized since he was 12 years of age, has acquired increased self-confidence, self-respect, trust of others, motivation and socialization, concern for the welfare of others, and a hope for the future; he is at the threshold of attaining a goal he had thought virtually impossible—successful rehabilitation and return to the community. He will certainly encounter other difficulties, but he now seems to have the courage and he has expressed the determination to live a productive life in the community. It is hoped that this report will generate further research within the field of work with blind and visually handicapped persons.

Ball, T. S. Training generalized imitation: Variations on an historical theme. *American Journal of Mental Deficiency* 1970, **75**, 135-141.

Bandura, A. *Principles of behavior modification*. New York: Holt, Rinehart and Winston, 1969.

Bandura, A. Psychotherapy based upon modeling principles. In A. E. Bergin (Ed.), *Handbook of psychotherapy and behavior change: An empirical analysis*. New York: John Wiley & Sons, 1971.

Bandura, A. Vicarious processes: A case of no-trial learning. In L. Berkowitz (Ed.), *Advances in experimental social psychology*. Vol. 2. New York: Academic Press, 1965.

(Continued on page 469.)

Same- and opposite-sex modeling

Summary

References

Creative Movement Classes for Visually Handicapped Children in a Public School Setting

ABSTRACT: The creative movement class was begun to provide visually handicapped children in the public schools with an appropriate physical education program. The emphasis was on the development of motor skills, posture, orientation, balance, and self-concept. Sample lessons describing the exercises and activities of the class are given, along with a summary of some of the special techniques that were found to be useful.

Originally, blind children in the United States were educated in residential schools. Curricula included swimming, bowling, wrestling, tumbling, and calisthenics. In the past 20 years, teaching blind children has shifted from residential to public schools. In the process, however, physical education has been either entirely overlooked or only marginally provided. This omission was due to the widely divergent needs of blind children, lack of acquaintance with the special techniques required for teaching physical education to them, and to the unsuitability for blind children of sports such as baseball, basketball, and football—the core of most physical education programs.

□ The importance of vigorous physical activity is taken for granted for the health and well-being of sighted children. But such activity is even more important for blind children because the average blind child lacks both motivation and opportunity for free, varied movement. He cannot learn to run and play by imitating the actions of other children. Overprotection at home and the current high incidence of secondary handicaps reinforce his feelings of inadequacy and dependency. Unlike the seeing child who runs errands for his mother, helps his father with chores, learns to use simple tools, handles game equipment, plays on the street, and participates in athletics, the blind child is sedentary, often idle, and isolated from the joys of bodily exercise that are inseparable from normal childhood. He has the same physical need to use his body as does the sighted child, yet the sad fact is that the blind child's leisure activity is mainly spent in listening to the radio or television.

As a result of this deprivation, many blind young people lack vitality and physical stamina, have poor posture, and, minus outlets for the release of tension, develop "blindisms," such as rocking, twitching, probing at the face, shaking the head, and sticking fingers in the eyes. However, not all facts are as sad as these. Blind children can be taught to use their bodies, and to develop physical powers which sighted children accept as natural endowments. There are methods and techniques for teaching them.

This article is based on the teachers' manual, *Let Them Run Free*, developed for the Creative Movement Program. Copies are available from the California League for the Handicapped, Inc., 3232 Geary Boulevard, San Francisco, California 94118.

ROSE RESNICK

Ms. Resnick, executive director of the California League for the Handicapped, Inc., San Francisco, has been involved in work for the blind for more than 30 years.

Physical Activity for the Blind

Results of little activity

□ An innovative program called “Creative Movement” was conducted for blind students in the San Francisco public schools during the school years 1970, 1971, and 1972, under Title III, Elementary and Secondary Education Act, U.S. Office of Education. Cooperating in the program were the San Francisco Unified School District and the California League for the Handicapped, Inc. This paper will outline the objectives, techniques, and course content of the project as it was conducted during the first year. The materials described were used by the instructor, Mrs. Charles Lee, holder of a master’s degree in theater dance from Smith College.

□ The objectives of the program were the improvement of: 1) *motor skills* (walking, running, hopping, skipping, galloping, and jumping forward, backward, and to either side); 2) *posture* (the proper positioning and alignment of head, trunk, and feet); 3) *orientation* (the awareness of location, distance, and direction, the awareness of the motor-muscular sensations affected by spatial relationships, and the ability to assume and maintain changes in body position in relation to one or more points of reference); 4) *balance* (aimed at enabling each blind child to pass a standard balance test—balance on the right leg for five seconds and on the left leg for five seconds); and 5) *self-concept* (aimed at giving the child a more positive self-esteem by helping him to move freely and to control his environment).

In the absence of precise measurements, the principal methods of determining the progress of the children were changes in physical movement, posture, and attitude as judged by trained observers and through interviews in which the parents were asked to indicate changes they observed.

The class consisted of eight girls and four boys; five were totally blind, the rest having varying degrees of vision, none more than 20/400. They ranged in age from six to 20 and in intelligence from retarded to bright. Many were conspicuously overweight. Equally apparent were poor posture, sloping shoulders, dropping heads, wide stance, and flaccid arms and hands. Some were obviously very shy, others brashly boisterous. Although they shared the same major handicap, they varied in problems.

□ *Lesson One.* We began our venture into movement with stretching, twisting, dropping, flopping. (One student balked at going barefoot: “My feet’ll get dirty.” “No, the floor’s been swept.” “My mother said I mustn’t touch the floor with bare feet.” We compromised with him and let him wear his socks.) Most of the students used their arms and legs, but not their hands, wrists, shoulders, ankles, arches, heels, and toes. They moved their heads rigidly; none could turn them freely enough to look over their shoulders.

After ten minutes, several were complaining about being tired, so we sat in a circle on the floor. “Let’s sit up tall. Now short. Stretch that spine. Now lie back, touch the floor with your back, and slowly breathe in and out.” The final exercise was the greatest challenge of the day—springing up and down with relaxed knees. A down-up, down-up rhythm was established on the drum. All had difficulty balancing and relaxing the knees.

Lesson Two. Here the focus was on sense of direction—forward, back, left, right, circle, diagonal, up, down, in, and out. In testing their response to direc-

“Creative Movement”

Program Objectives

The first class

Sample Lessons

Direction

tion, even forward-and-back and right-and-left confused several students. Their responses to even such basic space relationships as narrow, wide, high, low, up, down, in, and out, was uncertain.

Using a clock as a model, they made a quarter turn to the right (three o'clock), a half turn (six o'clock), a three-quarter turn (nine o'clock), and a full turn (12 o'clock). The children found the half and full turns easier than the quarter turns. To give them a measure of pace and smoothness, the students walked around the room to the beat of the drum. For balance and relaxation, they were asked to swing their arms in opposition to their legs. Each took a turn playing the drum, gong, and bells, while the others made quick, strong movements to the drum; large, round movements to the gong; and small, shaking movements to the bells.

For an exercise in pantomime, the students were asked to move to such words as "nervous," "tick-tock," "rigid," "droopy," "sticky," "floating," "swirling," and "soaring," and to act out "exploding," "melting," and "freezing." To imitate "wind," some took a few running steps, and for "mountain," some fell down and rolled over. From the pantomime, it was apparent that the students lacked experience, particularly visual experience. However, divided into small groups, they did quite well in acting out "machine." There were washing machines, with some of the group in the role of clothes and others of the washers, all swirling around merrily in the process of rinsing.

Pantomime

Lesson Three. The emphasis was on diversity of movement, tension and relaxation, and improvisation with materials. The students took partners for the down-up knee-spring exercise, this time holding hands lightly, trying to move together in rhythm. By placing the partially sighted students next to those without sight, all were able to improve at this exercise. Few of the children knew how to slide; they learned by putting their hands on the instructor's hips to sense the rhythm and body movement.

Diversity of movement

To the accompaniment of contrasting fast and slow rhythms on the drum, they next tackled feelings of force in movement—tension and relaxation. Again, with the appropriate loud and soft, fast and slow drum rhythms, they tried to improvise "tight-loose" movements in standing, sitting, kneeling, and lying down positions.

Tension and relaxation

We ended the lesson with improvisations on movement, using pieces of newspaper. "Try using your back with your arms holding the paper out ahead, or up over your head. Let's move all over the floor. How about throwing it up in the air?—that's it, jump after it." Once they began seeing some of the possibilities, they let go and dropped, kicked, punched, and crushed it. The room exploded with vigorous movement. Each student had an opportunity to use the whole room alone.

Improvisation

□ *Lesson Four.* This lesson was built around posture and balance. The opening exercise—"Reach up, stretch; reach down to the floor"—brought forth groans, particularly when they heard, "Knees straight." It was necessary for the instructor to straighten most of the children's feet positions. It took the entire school year to get them to stand with feet straight ahead. None could balance independently on one leg and swing the other forward and back, nor were they

Posture and Balance



able to keep the remainder of their body quiet—even when they tried it while touching another's shoulders. The instructor suggested that they grip the floor with heels and toes and, as a substitute for visual concentration on a certain point, that they concentrate on the spot from which her voice was emanating.

Balancing exercises generally set them giggling, but several made real progress in sensing the control and shift of weight to one leg. For ability and control, they tried dropping to a crouching position with the palms straight ahead on the floor and then returning to a standing position. The students were then asked to show how many different movements they could make from a lying-on-back, then an on-stomach position, then kneeling, sitting, and standing.

The instructor used a large piece of cloth as a prop for improvisation. Those with partial vision immediately began draping it around their shoulders or heads. The blind children seemed at a loss to know what to do with it, but, at the instructor's suggestion, they began pulling with it, standing on it, snapping it, and letting it float through the air. The cloth came to life for them and they were soon moving, twirling, waving, almost even running with it.

□ Here are suggested techniques to develop balance and coordination in blind children; some of these are also relevant to the tactile and auditory sources of their learning.

1. Procedure for introducing new material: Begin with a clear, simple, verbal description, allowing each individual to touch the instructor's arms, legs, or whatever body parts are involved. Sometimes it is simpler to illustrate foot movements by making the same motion with the hand, as in teaching the Mexican Hat Dance.

2. The practice of first doing an exercise holding hands with a partner, or in a circle with the entire class, is helpful in establishing space orientation and confidence in the individual.

3. To practice balance, the children can hold hands while standing on one leg and holding the other leg off the floor. A second exercise in balance is sitting on the floor and then rising without touching the floor with the hands.

4. To introduce the children to form in movement, a game called "Statues" may be played. The children stand on one leg and with the other leg and an arm make a shape. As soon as they respond to the idea of making various forms with their arms, legs, and torsos, they will begin to invent their own forms. Then they may be paired off, with each child placing his partner into a shape.

5. For fun with rhythm, have the children clap to the rhythm of each child's name—"Nan-cy Jones"; repeat it many times, then step to the same rhythm around the room. With the game "Guess the Name of a Christmas Carol," the instructor plays the rhythm of a carol on the drum and lets the children identify the tune.

6. To teach muscle control, have the children race with a balloon between their knees or run the length of the room while holding their ankles.

The degree to which blind beginning students will achieve freedom of movement obviously depends largely on the skills, attitudes, and sensitivity of the instructor. It depends equally upon the child's physical attributes, hearing, skin and neuro-muscular sensitivity, memory, interest, powers of observation, atti-

Agility and control

Special Techniques

Form in movement

Rhythm games

. . . Blindness in and of itself is not the determining factor in a child's development. Rather, failure on the part of adults to know what to expect of a blind child or how to encourage his optimal development creates the problem. . . .

All too frequently his development is tragically warped and restricted because of the tendency to assume that the limited functioning is the necessary and inevitable result of his physical handicap.

—From Miriam Norris, What affects blind children's development, *New Outlook for the Blind*, 1956, 50, 258-267.

tude toward himself and his handicap, and on the extent of his past experience in independent movement.

□ On the basis of close individual and group observation, all the students in the creative movement classes showed progress in varying degrees in one or more of the five major categories: motor skills, posture, orientation, balance, and self-concept. At the close of the school year, several could correct their habitual standing or sitting posture when requested. All were aware of its importance to health, appearance, and social acceptance. Two members of the class improved their ability to keep their balance. The number of random movements per minute made by several students was markedly reduced, particularly in the case of one multiply handicapped boy. Hard, verifiable data, in the form of precise measurements of the various components of physical fitness and freedom—coordination, balance, agility, flexibility, sense of direction, muscle strength, and endurance—have yet to be developed.

Nevertheless, the progress achieved was deeply rewarding. To give these children even a glimpse of the wider world they might reach by their own efforts, to see their exhilaration in the new sensations of free motion, to introduce them to their potential body vigor—these were experiences of inspiration to the instructors. For with even small beginnings, they witnessed perhaps the most profound of all changes in the students, a change in self-concept. With straighter spines, heads more erect, shoulders back, and chests a little higher, they could look the world in the face more confident of their ability to cope and associate with it. Both parents and instructors felt that the children had gleaned from these classes ways which could help them bridge the gap between blindness and the seeing world. And was this not, in the deepest sense, the purpose of the program?

□ To counteract the deficiencies which hamper blind children, our public schools must find ways of including basic physical training for them. Such training is paramount not only for their physical development and their ability to travel independently, but also so that they may function with confidence, freedom, and happiness in their daily lives. With this training they can expand their boundaries, cast off the shackles of inaction, be more nearly like other children, and grow up to be part of their community, with a larger share of life and living.

Results

Improved self-concept

Conclusion

Teaching Oral-Aural Communication Skills in a Rehabilitation Center for the Blind

ABSTRACT: Oral-aural communication skills include listening, conversation, use of playback-recording devices, techniques of aural reading, and knowledge of the sources of recorded reading materials. The class activities involve instruction and practice with the Sony 105A tape recorder, Sony (TC70 and TC40) and GE tape cassette machines, talking book machines, and telephone. Exercises include listening and speaking skills and the many uses to which the equipment can be put.

The purpose of this article is to describe the way the problem of oral-aural communications are being approached at the Michigan Rehabilitation Center for the Blind in Kalamazoo. In 1971, the teaching area at the Center called *oral communications* was renamed *oral-aural communications*. Since *oral* only refers to speaking, it was felt that the *aural* side of verbal communication, or listening, should also be taught.

□ Two aspects of rehabilitation, orientation and communication, are so fundamental that without substantial restoration or development of them, no meaningful progress will be made in the restoration or development of any of the other skills leading to the rehabilitation goal of independent living. Orientation is the understanding of one's position in a physical environment. Communication involves the same thing in a social environment. Just as a person who cannot sense his physical environment will become physically disoriented, so a person who cannot effectively send or receive communications involving other persons will be socially disoriented. Possession of a reasonable degree of both physical and social orientation is so necessary that they may be considered as twin cornerstones of what it means to be a functioning human being.

Our colleagues in mobility are going to great pains to define and teach orientation in the physical environment, but in rehabilitation teaching the general subject of communication has not yet been given comparable attention. I do not mean to imply that communication as a whole is a neglected field, but only that there is still much work to be done to describe and delimit the role of communication in the field of blind rehabilitation. My work in oral-aural communications is, therefore, one part of a larger study intended to add further information and experience in this vital area.

The area of communication in which the blind person's deprivation is liable to be most serious and least amenable to rehabilitation is, of course, visual intake. But, in practice, when a rehabilitation teacher comes in contact with a prospective student, he never knows what combination of communication disabilities might be encountered. For instance, someone blinded in a loud, fiery explosion may have severely limited aural and tactual input as well. Cultural and educational deprivation may stand in the way of all but the most rudimentary oral output. A crippling condition may interfere with tactual output.

GLENN LEAVITT

Mr. Leavitt, who holds a master's degree in blind rehabilitation and who taught German and Russian on the college level for seven years, is a rehabilitation teacher at the Michigan Center for the Blind, Kalamazoo.

Orientation and Communication

The present

Communication disabilities

At the Michigan Rehabilitation Center for the Blind, there are a number of teaching areas in which communication problems are dealt with. What follows is a survey of some of the common communication problems and the teaching areas which have the major responsibility for dealing with them.

□ As much as possible, oral-aural communications classes at the Center cover only the problems of oral-aural output and input, with other areas being taught in other classes. For instance, we now cover tape recorder operation which used to be taught in occupational therapy. And where the old oral communications class used to include subjects like vending machine operation, these are now included in more appropriate teaching areas.

Specific Responsibility

Taking into account the physical and mental limitations of each student, the oral-aural communications class, as presently constituted, seeks to promote: 1) improved sound differentiation and work recognition, comprehension, and retention; 2) knowledge of and practice in the conventions of simple, informal conversation; 3) mastery of the controls of common playback-recording devices; 4) enough experience with the utilization of each device in its various capacities so that the student can use it to its full potential with ease and facility for study, work, and recreation; and 5) working knowledge of the various sources of recorded material, including national organizations, state agencies, and local volunteers. In order to accomplish these goals, we have assembled in one room at the Center enough equipment so that several different types of learning can be going on at one time.

Goals

At present, classes are averaging about three or four students per hour. Every effort is made to keep students with similar goals scheduled during the same hours so that topics of common interest can be covered in group discussions. At present we have class sessions for homemakers, pre-study and pre-vocational skills, and students with undesignated goals. Students are averaging about two months to reach their full potential in oral-aural communications. Students with special physical or mental limitations, of course, need much individual attention; most others, however, learn better in classes of three or four where they share and help each other. However, when classes have more than four students, the instructor is usually reduced to being a ringmaster and the student in greatest need of help suffers the most.

Class size

□ Typically, a student's first hour in the class is spent in room orientation, an explanation of what oral-aural communication is, and general conversation to build mutual understanding and trust. Most students who enter the class have already had at least some experience with recording devices and it is not uncommon for such a student to feel threatened, fearing that he will be forced to change his ways. Therefore, he is assured that the approach is descriptive, not prescriptive, and that we are there to meet his needs, not our own.

The First Stage

Actual instruction begins with the Sony 105A open-reel tape recorder with variable speed control modifications made by the American Printing House for the Blind (APH). There are several reasons for starting here: first of all, the 105, as we call it, is the most popular machine that we use; secondly, students must learn to operate it quickly and efficiently because a great deal of the informational reading materials are only available on reel-to-reel tape; and final-

The Sony 105A

ly, the APH-modified Sony 105A is the most valuable, versatile aural reading machine developed to date. The explanation of how to operate the Sony 105A is itself on an open-reel tape. The instructor only shows the student how to operate the volume switch. The tape is started for him and, as he listens, the voice on the tape directs his hands to each of the various controls and instructs him how to operate them. The 105A instructional tape is so arranged that in about 30 minutes the student has carried out each of the basic functions, including fast forward, reverse, and finding indexing beeps. Then the voice on the tape suggests that the student call the instructor, so that together they can discuss any questions the student may have. Until that time however, the instructor is free to work with other students.

For each student there is a printed checklist on which a record is kept of what he has done and read. Seldom is a student allowed to simply bypass any aspect of the program; he is strongly encouraged to demonstrate his claimed proficiency in a given task. This sometimes involves some kidding and cajolery on the part of the instructor, but frequently the effort is rewarded by the revelation of a deficiency which the student did not even suspect he had. For instance, one student claimed that he knew all about reading talking books, but that he always found it to be a "drag." I found out why when I observed his reading for awhile; he played side one, side three, and side five, and then turned the records over to play sides two, four, and six. Is it any wonder that he didn't understand talking books?

Check list of skills

The next step after introduction to the controls of the 105 is a little recording. A common recording assignment, which seems to be fun for students of all ages and levels of sophistication, is to tell the story of the three little pigs with sound effects and variations of speed. However, there are a few students who prefer to tell their life story or recite a poem. By placing a beep at the beginning of his recording, the student learns the advantage of having such a signal when he has to rewind and find where he started on the tape. If the student misses his beep, the tape ends up all on one reel and he has to go through the nuisance of threading the tape again.

Recording practice

□ At the next instructional stage, the student gets some practice with aural reading for content by listening to open-reel recordings of pamphlets explaining the functions of regional libraries, recording agencies, the talking book program, organizations of and for blind persons, and the laws relating to blindness. By this time independence is stressed. The tape the student is reading is kept to the rear of the table; he is expected to find it and an earplug and then get started on his own each class period. A common problem at this point is keeping track of how much of a particular tape was read in the previous period. Some students simply remember the subject they last read; some keep in mind the page they were on and count beeps to that point; if the tape is not to be used by anyone else in the interim, the student can leave a tiny piece of paper wound in the reel at the place where he stopped. Or he can feel the difference in the tape on the reel where the playing ended and the rewinding began. At the end of the hour, he is expected to turn off and close up his machine and put things away.

Independence Stressed

We keep a small library of taped books in the room. Subjects have been

Related reading

chosen to coincide with the work being done in the various teaching areas of the Center, i.e., cookbooks, etiquette, and health for the daily living skills class; spelling books for braille and typing; plumbing for home mechanics; and, of course, books on tape recording, speech, and logic for the communications class. Also, we have some religious and recreational reading for those who prefer it. All students are encouraged to choose one taped book and to read at least two reels of it in class. Prospective college students are strongly urged to read a taped book from Recording for the Blind in order to learn how to use the page and chapter indexing beep signals they contain. Since Recording for the Blind has by far the largest collection of recorded texts in the world, and since the student must be skilled in the use of specialized equipment like the APH-modified Sony 105A to realize their full potential, we give very concentrated attention to the mastery of this important type of aural reading.

An imaginative student may spend some of his time at this stage engaged in creative work; he might sing a duet with himself, or a group might produce a radio play. Some of the students' efforts have been quite clever and a taped scrapbook of their better productions is kept to serve as an inspiration for others. Also, a small number of students who express an interest and who have the ability are instructed in the rudiments of tape recorder maintenance, including head cleaning, splicing, and demagnetizing.

Creative work

At this stage we usually take some time to teach telephone dialing, and each student gets a chance to demonstrate his ability to place long-distance calls and to report emergencies. After this coverage of the fundamentals, more refined work on telephoning is done in the mobility area.

Telephone skills

□ The third stage of instruction is devoted to talking book machines and cassette recorders. We have three different models of the talking book machine in the room, and the student is encouraged to master the controls of each. He is not only taught how to play a record, but also to unhinge the speaker, use the record guides, and position the cord so it will not be cut. The instruction is accomplished with the discs that come with new machines and with supplemental discussion. Students read and take notes from the latest issue of *Talking Book Topics* and listen to a recorded introduction to the program of the Hadley School for the Blind. Our newer talking book machines are equipped with variable speed attachments, which rate as perhaps the most unpopular devices in the room because they are hard to plug in and the speed tends to drift faster or slower as one reads.

Talking Books and Cassettes

In an attempt to cover as many different features as possible with only a few machines, we have chosen the General Electric cassette book machine, with APH variable speed and tone indexing modifications, the Sony TC70, and the Sony TC40 as representative cassette devices for our students. Because a large number of our students are interested in buying or replacing cassette recorders, we take time to make sure that the student has a clear idea about all the different ways that these machines can vary, including power sources, types of controls, speakers, microphones, weight, general quality, and many special features. For instance, if the student is going to carry the machine around to college classes, he will probably wish to forgo the convenience of a heavy,

Representative machines

built-in transformer; if he is likely to want to use the machine with dirty hands, he should have piano-type control keys; and if playback quality is very important, he should look for a larger machine with a larger speaker. The TC70 was chosen as a representative machine for table-top use in the home or on the job: it is stable; it runs conveniently on household current, which is most economical; it can be used by a housewife to follow a recipe even though her hands are covered with flour; it has the review feature (brief rewind with the playback head engaged, handy for following directions and typing); and it has exceptionally good tone. Although still available in some stores, the TC70 model has been discontinued by the manufacturer. However, the Sony TC90 and TC110A models incorporate all of the features of the TC70 plus a few more. On the other hand, the TC40 was chosen as a representative machine for students: it is small and light; recording can be done with no special set up at all; it has the cue feature (*slow* fast-forward with playback head engaged, handy for finding things on a tape and speed-reading); and it has the necessary input and output jacks.

Most students are taught how to dub from one machine to another, i.e., from talking book machine to a cassette recorder (except, of course, the Library of Congress cassette book machines which are only players), from a cassette machine to an open-reel machine, or from a radio to an open-reel recorder. Students who have personal radios and recorders are asked to bring them to class. Together we look them over, making sure that the student is aware of all the controls and potential functions of his instrument. The majority of students who have brought personal devices to class have been happily surprised to find that their instruments have more useful features than they had realized.

Dubbing

As was the case with open-reel tapes, each student is encouraged to choose and read a book or magazine, one on cassettes and one on talking book records. Normally, at least two sides are to be read in class and emphasis is given to techniques of skimming and keeping track of one's place. Some students need instruction in the buckling and unbuckling of mailing containers. Many people have a hard time keeping awake while engaged in aural reading, so the students are encouraged to bring in craft projects from occupational therapy to keep their hands busy while listening. In general, this has proved to be a good solution to the problem. But, on the other hand, there are some students who find aural reading unbearably tedious, no matter what we try to do. These students are excused from further participation in the activities of this class as soon as they feel that their needs have been met. However, it is disheartening to have a student whose educational goals will involve much reading, who is a beginner at braille, but who rejects aural reading.

Practice

The fourth stage is where we attempt to tie together the knowledge and skills acquired so far. The activities include, but are not limited to: 1) reading about tape recording and electronics; 2) reading and taking notes from college-level texts; 3) reading about and practice in the efficient use of a combination of recording devices in the college classroom, on the job, and at home (Leavitt, 1971); 4) readings about and in compressed speech (explanations and samples supplied by the Perceptual Alternatives Laboratory, Louisville, Kentucky;

Additional reading

Emerson Foulke, director); 5) independent creative projects, such as practice in recorded journalism, simulated disc jockeying, and radio plays; and 6) interdisciplinary projects such as reading exercises to be typed in typing class, etc.

□ Not assigned to any particular stage or time in the program is our work in speaking. If in day-to-day contact with the student, it is determined that he is unaware of or unpracticed in the conventions of informal conversation, time is taken to engage him in dialogue and to point out to him the advantages of humility, appropriate voice modulation, and concern for others. As mentioned earlier, the approach here is descriptive, not prescriptive; we only describe to him behavior which is liable to be most generally acceptable, and then he is free to choose his own course of action. In our class library we have some readings on etiquette, speaking, English, and logic. Students who show a need or who express an interest in these areas are encouraged to read some of these texts. After doing some reading, small compatible groups may practice their logic in informal debates.

□ The listening skills program is still very much in the experimental stage. The materials we are currently using were loaned to the Center by Claudell Stocker of the Kansas Rehabilitation Center for the Blind; these are to be published soon by Charles C Thomas, Publisher. We have agreed to use them and write up our findings. Since no one student has yet completed all the drills, it will be a while before we have anything concrete to say about them. However, student response to the drills has been generally favorable; students' judgments include comments that they feel their ability to concentrate on one sound source and retain what they hear has improved considerably since participating in the class. A detailed report of the procedures and results of this program is planned.

Oral-aural communications at the Michigan Rehabilitation Center for the Blind is now about two years old. The old "oral communications" class which had been a catch-all has been replaced by a rationally defined teaching area with clearly delineated areas of responsibility and attainable goals.

□ Future plans for the class include: 1) improved coordination of readings and other projects with other teaching areas, especially typing and braille; 2) establishment of a more complete library of talking book records, taped books, and cassette books in order to add more substance to class assignments; 3) development of tests to help determine the weaknesses of new students and to measure what progress is made by students before they leave the area; and 4) concerted effort to inform blind students and their counselors about the value of proper playback and recording equipment to the modern blind student.

Hopefully this outline of what is being done about oral-aural communications at the Michigan Rehabilitation Center for the Blind will clarify just what the subject is and what we are trying to do for our students in this area. We will welcome comments and criticisms from all persons concerned with the welfare of the blind.

Speaking Skills

Listening Skills

The Future

Reference

Leavitt, G. S. Time, money, and students with visual limitations. *New Outlook for the Blind*, 1971, 65, 271-275.

Running Free: The Use of a "Running Cable"

With Blind Adolescents

Who Function on a Retarded Level

ABSTRACT: A technique for teaching blind adolescents who function on a retarded level to run independently with minimal supervision is described. A "running cable" has been constructed using two telephone poles 38 yards apart with two cables stretched between them. The youngsters hold on to a strap connected to the cable by an inverted pulley. They learn to run at full speed using the strap as a guide. The cable has been found to be a useful aid for exercise, for ambulation problems, and for allowing for the release of excess energy in a constructive manner.

How many youngsters do you know who function on a retarded level and are blind who run over 1¼ miles each week? Do you know a boy who is retarded, blind, and physically handicapped with shortened leg muscles who used to travel 78 yards in 90 seconds but who now travels it in 40 seconds? Pacific State Hospital knows them. Their names are Bobby and Johnny and David and Debbie and . . . we could go on and on. More important is the fact that these residents, who used to expend their energy by jumping straight up and down, hyperventilating, and turning over furniture, now work themselves into a sweat by running, jogging, or walking off this energy. Many of these youngsters do this independent of staff, requiring only verbal encouragement.

□ The key to this intensive physical exercise is a "running cable" constructed by General Telephone Company of Pomona. It looks like a 38-yard-long double clothes-line for giants! The difference is in the six-foot strap with a handle on the end that hangs down from each line, and the way it is used.

It is used by the blind residents of Ward 24, but not for laundry! The resident grasps the handle and moves down the line as the strap rides on an inverted pulley. The apparatus serves two purposes: it acts as a guide for the user, keeping him from straying more than a foot on either side of the cable as he moves down the line; secondly, it gives him the security needed to become independent of "help" from staff. At first the individual needs help in holding the handle and following the cable. As he comes to trust the dependability of the handle and the ground surface, he relaxes and increases his speed. Soon he feels confident enough to use only the handle and a voice of encouragement from his group leader as his guide.

Some residents, like Johnny, learn very quickly. Before using the cable, he would only shuffle along to the dining room or to school, never traveling faster than a speedy snail. For five days Johnny moved through a 12-step process in learning to use the cable. By the fifth day Johnny was running independently the full length of the cable and back as fast as he could. Now he runs six laps every day, accumulating almost 1½ miles at the end of five days. Not everyone

ROBERTA STEPHENS

Ms. Stephens is a recreation therapist in the Blind, Deaf, and Special Problems Program, Pacific State Hospital, Pomona, California.

"Running Cable"

Learning to run



ABOVE: Two blind, retarded youngsters run as fast as they can guided by the "running cable" and the voice of the recreation therapist.



TOP RIGHT: A youngster with a physical handicap that affects his gait uses both straps to help him learn to run.



BOTTOM RIGHT: With the encouragement of the recreation therapist, a very slow walker learns to increase her speed using the "running cable."

learns as fast as Johnny. Beverly, for instance, finally places her hand on the handle after a three-week period. Most residents progress at a rate somewhere between Johnny's and Beverly's.

David and Earlene have an abnormal gait due to shortened leg muscles. When David holds on to both handles, his gait no longer impedes him. The expression on his face as he speeds down the cable says, "Look, I'm flying!" Earlene only walks on her tiptoes, except when she is running with the cable; then she runs on flat feet!

The most secure situation for a blind and retarded child is to huddle in the corner on the warm floor or to curl up in a chair. Many withdraw from their surroundings to indulge in manneristic behavior and do not want to be disturbed. When asked to participate, they become agitated and upset, often displaying violent behavior; this is a typical initial reaction to the cable. Soon they lose their fear of it and begin to enjoy their daily exercise.

□ The idea for the cable was illustrated in a model built several years ago by the ward's recreation therapist. However, it lay dormant because of maintenance problems it would create. Proceeding on the belief that certain residents desperately needed vigorous exercise, Bobby was chosen as an "experimental" subject to be trained to run around the track at the hospital. His group leader faithfully took him several days each week and trained him to run on the track. At first Bobby needed to be physically assisted around the track, but he quickly learned to follow his leader's voice. Bobby would often become very upset and throw himself on the ground, especially when he found himself running off the track or slipping on the surface. Even though his behavior on the ward improved as a result of this exercise, it was too taxing and time-consuming for ward personnel. The only solution still seemed to be the "running cable."

Approval was soon given for a modified version involving the use of already existing telephone poles located in a vacant play area. The only disadvantage with the plan was the distance the children would have to travel in order to reach this area. Meanwhile, an active parent of a child on the ward approached General Telephone Company with the idea of the "running cable." After deciding to take on the idea as a project, the company consulted with hospital personnel and found workable solutions to the maintenance problems. Within three days, the total apparatus had been built according to the original plans, and better yet, in the backyard of the ward.

□ Expectations are high concerning the potential of the "running cable." If the residents who exhibit hyperactivity and maladaptive behavior can get rid of this energy in a constructive way, if residents with ambulation problems start walking better, if the withdrawn resident begins to take interest in something or someone other than himself, if ward staff find these residents less of a maintenance problem and more of a joy, then the "running cable" will be worth its while as one more useful activity in the process of normalization.

Improves gait

The Design

Telephone company cooperates

Expectations

How to Play With Your Partially Sighted Preschool Child: Suggestions for Early Sensory and Educational Activities

ABSTRACT: The purpose of endorsing a systematic and logical program of visual stimulation is to bring the visually impaired child into a world of functional reality. Specifically, an infant can be perceptually reinforced and "rerouted" to seeing by making optimum use of available equipment such as an infant seat, walker, backpack, jumper, records, and special television programs. Familiarizing the infant with colors, shapes, and written symbols and initiating him to basic reading at the same time that he is proceeding through critical periods and entering certain stages strengthens his self-determination and prepares him for the mandatory school curriculum. Success in responding to challenges is important to an infant's unfolding personality and produces psychological confidence. Visual stimulation encourages the visually handicapped child and such encouragement, in turn, facilitates his search for personal achievement in adult years.

Once over the threshold of birth, a baby is capable of reacting to light, following a slowly moving object, recognizing his immediate surroundings, and showing preference for what he sees. If an eight-week-old infant is repeatedly shown a solidly colored sphere, he is able to perceive the identical or altered size of the same shape whether or not the sphere is held at the same length or at a distance (Bower, 1966). To have accomplished this, an infant has registered an image on his two retinas, combined the two, and deciphered the code. A baby's capacity for visual perception is an integral part of his genetically structured cranial equipment. In fact, newborn human infants possess and exhibit much more highly functioning nervous systems than has been widely believed (Beadle, 1970, p. 5). Through an intricate balance, enmeshing the five senses into the neurologically innate programmed system, a newborn baby is ready to learn.

A certain percentage of all babies enter the world physically handicapped, neurologically dysfunctioning, retarded, or completely incapacitated. The medical profession stresses the importance of early recognition of any problem which hampers a child's physical and intellectual growth.

Each year numerous children are born with impaired visual acuity which is frequently undetected until the child is in school. Unfortunately, eye damage is difficult to diagnose in newborn infants because a great majority of these babies do not exhibit clinical manifestations at birth. All too often doctors and parents do not discover a baby's visual malfunction even when his incapacity is detectable within the first six weeks of life. A baby's eyes must be given assiduous observation in order to determine any defect which might prove critical. If an infant does not respond to light at birth and if he is unable to visually locate and perceive an object within close range at three months (Pines, 1970), he may be visually impaired and may require direct and continual visual

M. ADELAIDE BARRY

Ms. Barry, the mother of a partially sighted child, is a resident of Fairfield, Maine.

Visual Perception

Visual impairment

stimulation. The child's condition necessarily warrants a thorough ophthalmic examination so that an accurate diagnosis can be established.

□ Quite often the eyes will readjust themselves into perfect harmony without any medical or parental assistance. This is especially true during the first year of life when the eye muscles, cranial nerve pathways, the horizontally layered cells of the retina, and the decoding systems of the brain are developing and are merging into a fundamental conceptual package. However, the parent, assisted by an ophthalmologist (and later by an optometrist), should advocate a systematic course of visual stimulation if a year-old baby's eyes continue to flicker (unusually rapid shifting of the eyes, called saccadic movement), show prevalent and constant involuntary movements of one or both eyes (nystagmus), appear cross-eyed or to have one eye turning out or in (strabismus), exhibit irregular muscle control, manifest difficulty in focusing, or are generally unable to follow a moving object.

A preschooler's visual impairment often results in visual-perceptual problems, poor depth perception, stumbling, developmental dyslexia, and psychotic tendencies, as well as a host of other disabilities which severely affect a child's development (Anapolle, 1970; Krippner, 1971). These problems are accentuated when eye damage is caused by specific eye diseases (not considering anatomical eye and related neural degeneration of visual brain cells).

Hopefully, visual challenge begins at birth or soon thereafter. Quite often, it is the partially seeing child who is responsive, aware, unusually preoccupied with sound, over-compensating in certain areas, and exceptionally well coordinated who will accept the challenge of realistic life and achieve the impossible. The "impossible dream" of the frustrated child who is constantly trying to "see" gives insight to the workings of the human brain itself.

Before endorsing any method of visual stimulation, it is imperative that the fact be recognized that each individual baby possesses his own preordained chemistry; he will react to his environment as dictated by his own genetic characteristics (Beadle, 1970, pp. 13-15, 28-32, 87-88). The overall objective of stimulating the visually impaired child is to bring his particular identity into proper focus according to his own capacities in the emotional balance of everyday living.

What can and must be done to assist the visually impaired child? How can his innate abilities be brought to the highest level possible?

□ Each child reacts differently and independently from the moment he is conceived. Most babies must be allowed to set their own pace in the adventure of learning. In order to successfully stimulate an infant at any stage of growth, the parents, and especially the mother, must be attuned to the maturational pattern and ability of the child himself. This objective can only be determined by diligent observation and the mother's initial and continuous response to her baby from week to week and month to month. An attentive approach creates a positive environment and conveys an attitude of learning readiness. When stimulating the visually impaired baby, there are infinite ways and means in which every family member can actively and ingeniously participate.

From birth on, an infant should be cuddled, held close, and placed in a well

Visual Stimulation

Developmental problems

Individualized program

Maturational Pattern

The newborn infant

lighted room. Infant seats are of special advantage because the baby can be carried from room to room and set safely in an upright position at close range. For instance, a month-old infant shows obvious pleasure sitting in his chair on the kitchen table. If the child seems to prefer turning his head in one direction, move the infant seat so he may try to focus on the nearest light or object. This child may physically need to hold his head at an angle when attempting to regulate his eyes binocularly. Give him textured rattles such as a small brightly colored wooden drum containing a bell. Tell the baby what he is touching and hold his hand with the drum (or other toys) up to his ears. In this way he begins to coordinate hand-eye-ear development which is so essential to normal growth. If this type of exercise is repeated day after day, the visually impaired infant will respond with delightful smiles and will be anxious to explore different toys.

From the time a child is three months of age, he must be given the opportunity to lie on the floor. His native "radar" equipment supplies him with certain neurological patterns which enable him to develop at a normal rate. If he attempts to pivot, roll over, and pull himself along by pulling up his knees and pushing, help him along in a similar pattern. Then, the parent should lie directly in front of him and let him grasp outstretched fingers while praising him on his adventure. Present him with some favorite rattles or toys and let his own incentive challenge him. He wants to be mobile; he is trying to focus on his immediate surroundings and is seeking to comprehend what his brain is stimulating him to encompass. A positive and happy voice will also give him the psychological aid which he so desperately needs.

Three months old

□ Playgrounds at any age level provide an excellent opportunity to swing with an infant while holding him snugly. While outdoors, walk around with him and take him for frequent strolls in a carriage. This gives him the opportunity to discover the myriad smells of outdoors, the voices of other children at play, as well as a new awareness of space perception. Being outside provides an excellent occasion to acquaint the baby with the backpack (approximate cost: \$15). This unique piece of equipment insures support, a close human relationship, the rhythm of walking, and a precious chance to join in on family excursions whether it be to the nearest park or climbing mountains. A baby is ready to be carried in a backpack from the age of three months.

Playgrounds

An infant is ecstatic when placed in a "jolly jumper" for short periods of time as soon as he can manage to hold his head up. A "jolly jumper" (again about \$15) can hang from almost any doorway, provides proper support, and permits the child to bounce up and down and around while touching his toes to the floor. As the child grows, the jumper can be readjusted. By four months, the baby anxiously awaits his daily adventure in the jumper. In fact, he will smile, vocalize, bounce, and play for hours in this creation until he is ready to walk. However, careful precautions must be undertaken when introducing the jumper so the child is not frightened. At first, five or ten minutes with the mother holding and swaying him ever so slightly, talking and laughing with him, will set the stage for security and happiness in the jumper. After this is repeated for a week or so, a homemade mobile is a gratifying supplement. Brightly colored posterboard cut into bold shapes, ribbon balls, and other objects can be safely

"Jolly jumper"

attached. These make fascinating and visually stimulating toys for the baby to grab, pull, tear, and bounce. (A baby must not be left alone at any time, including the time he is in his jumper.)

Simultaneously, crystal beads from necklaces or earrings can be strung on heavy monofilament thread and hung from ceiling fixtures so that they are out of reach of little fingers but in a place where the sun will shine on them. Rainbows will dance in every corner of the room and occasionally on the pupil of the eye itself. Mobiles decorated with jingling shells and noise-making objects are also a good addition to doorways, furniture, ceilings, and the nursery. Eye-catchers are welcome additions to an infant's life (Kagan, 1972).

□ At four to five months of age, ornaments such as plastic bells in assorted colors may be attached to the jolly jumper. First hang a yellow one so that when the baby swings, it will swing around at eye level. He will relish chasing it and bouncing with it, and find success in grabbing it. After a few days, add a blue one and then a red one complete with short descriptions about its color, sound, and chewability. Once a baby has mastered these tasks (and in most cases he will), he is ready for textured circles, squares, and triangles in different colors. These learning times should be approached when the baby is undistracted and when the parent and child are both in a happy frame of mind. Even if he does not react to the colors or comprehend size and shape constancy, he will have been psychologically encouraged by a positive attitude which, in turn, will be a constant factor for self-determination. The parent must never let the young child feel disappointed in himself or relay an attitude of anxiety or failure. If, for instance, the baby is just not interested in the colors or shapes, any number of other intriguing devices which might be of visual assistance may be invented and substituted.

Other assorted gear which fascinate a partially sighted baby include flashlights, small tin shapes which tingle with precise tones, whistles, aluminum cups, plastic spoons, and other kitchen gadgetry. Objects small enough to be swallowed should of course be avoided. Playing age-old games such as peek-a-boo and pat-a-cake are a never-ending source of joy. Also available are a wide variety of children's records which should be selected one by one at each age level and according to the infant's interest. For example, when a child discovers and contemplates the various parts of his body, Pete Seeger's record "Put Your Finger In the Air" would be a perfect choice. (Title: "Pete Seeger, Children's Concert at Town Hall," Columbia Records, Stereo: HS 11284).

When a baby begins to creep, erect a two- by three-foot mirror at floor level and watch how he discovers his eyes, nose, and the movement of his own body. The mirror provides an excellent opportunity to bring the unseeable world to a visually limited infant. Probably the six-month-old child cannot perceive the entirety of a Christmas tree, but he will assimilate its bright reflections of baubles, lights, and tinsel in the mirror. Another good idea is for Mama to sit with her child in front of the mirror while playing pat-a-cake. Then touch his nose and say nose: he will want to feel Mama's nose. At the same time, point out the two noses reflected in the mirror. Most likely the six-month-old will be jubilant as he discovers ears, toes, eyes, hands, etc. As he watches himself and others

Four or Five Months Old

Games and songs

Mirror

in a mirror, the baby will begin to grasp the concept of human individuality. The mirror serves to reproduce what he tries to see but cannot.

Balls are always an enticing source of fun for babies. A one-year-old infant enjoys being able to roll a ball from one person to another. An older sibling is of particular assistance with balls because he can help establish a new standard of achievement. The world revolves around the concept of circles, spheres, and wheels—from tricycles to galaxies. Therefore, the principle of balls “round and round, all around” is a most useful lesson in a child’s life.

Balls

□ Since a baby feels particularly restricted when trying to be mobile, a walker should be added to the program of visual stimulation when he is about eight months old. A walker (about \$8) has a seat, tray, four legs, and wheels. A young child enjoys learning how to operate his walker from one room to another, manipulating through doorways, and finding furniture and other household items at eye level. For the first time, he can physically explore his surroundings and will gain a new awareness of self in space. At the same time, it is extremely important to assist a baby in coordinating his bodily movements, such as creeping and crawling, when he is not in his jumper or walker. These maneuvers play a dominant role in neurological growth (Krippner, 1971, p. 71). A delightful but well supervised exercise of climbing stairs can be introduced when the baby is nearing the end of his first year. (This will necessitate a gate for the times when he should not be on the stairs.) The parent should slowly and patiently place his child’s right hand (if that seems to be his preferred hand) on the bottom stair. Then the left hand on the second stair, then the right foot, the left, and so on until he is at the top. After the game has been repeated several times, the youngster will have managed this difficult exercise and will be on the journey of attaining proficiency in one of the basic developmental processes—“general movement” (Krippner, 1971, p. 71).

A Walker

Games such as “climbing the stairs” are fun to play, provide basic lessons, and restrain the visually impaired baby from over-relying on his jumper and walker. Also of concrete assistance to the baby during this crucial stage of development is the construction of a solid wooden platform with a ladder attached on one side and a slide on the other. For years to come, this enticing invention will stand as a unique piece of equipment which will provide physical encouragement for the learning baby.

Stair-climbing

Playing outside in the grass and discovering leaves and other textured materials are superb incentives for every child. It must be emphasized that the importance of laterality, directionality, dexterity, and proper ocular movements are essential for efficient hand and eye coordination and overall normal development (Anapolle, 1971, pp. 82-83).

Out-of-doors

The next steps in the baby’s world are necessarily complicated and will have manifold implications for his future maturation. From the moment he takes his first step until he enters school, he will continue on an important adventure of learning, steadily accomplishing his goals by trial and error methods. Looking ahead to age five, he will have been visually challenged and guided. Accordingly, success will be his reward.

□ Considering “an infant’s basic ability to pick up logical rules from mere

Basic Reading

fragments of evidence and then use these rules in a variety of combinations" (Pines, 1971, p. 32), it is possible to launch an exciting game of basic reading just after a baby's first birthday (Doman, 1964, pp. 102-140). No other accomplishment in his life will have greater value than being able to perceive the written symbol. As always, the parent should choose a happy time and an uncluttered environment when introducing a toddler to his new game. The parent must constantly be attuned to the child's attention span and general interest.

First, cut out a five- by 15-inch rectangle from white posterboard. Then cut out and paste well-shaped three-inch high red letters for the word "Mommy" on the rectangle. The most favorable time to acquaint a baby with his first flash card is while holding him. Say "Mommy," then show him the word; let him clasp it for a minute or so while he feels the red letters and studies the word. Dramatize the sign with an animated voice as the word "Mommy" is repeated several times. Then the sign should be put away for a minute or so while playing the game of peek-a-boo with him. Then the lesson should be repeated. If this is done four or five times a day for two days or so, he will have trained his visual pathway to decode an abstract concept which in turn will be indelibly imprinted and computed within the delicate mechanisms of his brain. A partially sighted baby is ready for the second sign, "Daddy," which should be introduced in an identical manner. After mastering the word "Daddy," the toddler is ready for his first test. Hold both signs at eye level, one above the other. Then ask your baby to find "Mommy." He will probably select the correct sign. During the day repeat the test several times but be sure to alternate the words. If the toddler does not respond correctly or is hesitant to do so, put the materials away for a month. One word of warning: never let an atmosphere of disappointment predominate. Beginning to read is just another game to a baby and the object of the game is visual stimulation.

Once a toddler has perfected his first two words, other signs such as nose, hand, head, toes, hair, eye, etc., can be systematically incorporated into his daily sessions. These words are of primary importance because they are learned through a combination of visual, auditory, and tactile senses. A special reading program for preschoolers, the Doman-Delacato Kit, can be purchased for ten dollars from the Institutes for the Advancement of Human Potential Book Store in Philadelphia. The kit contains words with black lettering in preparation for one specific "I Can Read" book called *Who Are You?* by Lindley Boyer.

One very effective method of teaching words to a visually impaired toddler is to cut out letters from red posterboard and place signs around the house. For instance, glue "hot" on the stove; then show the baby the word while saying "hot." The next day glue "cold" on the refrigerator. He'll understand. This method has one special advantage for the toddler in that he learns what is dangerous before he stumbles downstairs or burns himself on the stove. At the same time, he has become acquainted with letters and words at an age when learning becomes an integral part of his brain.

At best, it takes years to attain proficiency in visual-perceptual organization and to master the process of learning to read. It must be stressed that no one particular system is the most effective. A happy and steady approach is most

Flash cards

Using all the senses

Signs placed around the house

Happy, steady approach

important at all times and as the visually impaired baby gains comprehension of his words, he will be eager to expand his reading vocabulary. If the words are strategically presented to him day after day, month after month, he will thoroughly enjoy reading his first book when he is three to four years of age depending on the size and clarity of the print. Even a three-year-old who possesses normal vision has difficulty focusing on tiny print.

The signs for the child should be constructed with careful attention given to size, clarity, and color. Words composed of five- or six-inch lettering are awkward for the toddler to assimilate, but at the same time they must be large enough for him to decipher at one glance. The only cardinal rule is: always be inventive. Recommended beginner books are: *Ten Apples up on Top* (Dr. Seuss), *Hop on Pop* (Dr. Seuss), *Are You My Mother* (Eastman), and *Who Are You?* (Lindley Boyer).

Beginner books

By the time a young child enters school, his visual pathway will have already become accustomed and pre-adapted to the mandatory school curriculum and his brain and general psyche will be able to more readily adjust to the school environment.

Since each visually impaired child has his own particular focal range, the parent must objectively study the baby in order to determine the point at which he can most comfortably use his optimum vision.

□ A special eye test, one which will not interfere later on with the Snellen Test, can be performed at home when a baby is about 17 months old. As usual, a happy time is the most appropriate when attempting the test. First, assemble a complete assortment of the following gear: one candle, one small box of colored nonpareils, one hat with chin strap, one package M&M's, and one eye patch with an attached elastic. The test is most successful when the toddler is seated in his high chair and waiting for his food. Talk to him, praise him, and laugh with him as his hat is deftly slipped over his head and the chin snap secured. With the other hand, place the eye patch under his hat but around his head. Light the candle quickly as the patch is gently lowered over the worst eye. The baby will probably be confused and upset because he, in particular, requires total use of his vision. However, the bright flame of the candle will draw his attention and fascinate him. Then offer him some brightly colored M&M's. Carefully study the movements of his better eye as he attempts to focus on the M&M's. Shift the candy slowly from left to right, up and down; first at close range and then farther away. At this point, the worried but curious baby will be more accustomed to his patch and will scrutinize his immediate surroundings for the candy. While observing him, certain reactions should be noted and itemized so that a definite pattern of visual competence can be ascertained. A fairly inclusive list of thought-provoking questions is as follows: 1) Is there an unusual and rapid shifting of the eye? If so, to what degree? 2) Does the candle cause the pupil to dilate or contract? How delayed is the reaction and to what extent does the eye dilate or contract? 3) Does the eye focus immediately or with hesitation? At what range or not at all? 4) Does the eye appear to rove in a circular, perpendicular, or horizontal fashion? 5) Does the hand over-reach, under-reach, or go to the side of the prized object? 6) When attempting to focus, does the

Home Eye Test

Close observation

child hold his head at an angle? If so, is it to the left or right and what is the approximate degree of tilt? 7) Note the distance at which the focal point is reached and actual response of the hand-to-eye coordination. (He may even observe the colors.)

The non-pariels should be used intermittently with the M&M's but, because they are so very small, the baby may lose interest in them. Try anyway. When the test is finished, play peek-a-boo with the youngster and relight the candle. He will then consider his eye patch a new game and although the patch worries him, he will be eager for repeated sessions. After two tests on the same eye on consecutive days are completed, repeat the operation by placing the patch over the better eye and observe his responses in an identical procedure. Inform the ophthalmologist and pediatrician of his reactions so that they may better understand just what the baby actually sees and will more ably interpret the results.

□ When the child is two years old, he is ready for an adventure with his own books. The "Sesame Street" books on numbers, shapes, and letters are an ideal selection (hard cover, \$4.95; paperback \$1.00). The *Book of Numbers* should be introduced first because psychedelic colors are employed and the numbers themselves are eye-catchers. When the child explores the *Book of Shapes*, he will find his old friends: squares-cubes, circles-spheres, rectangles-pyramids, etc. Two years old is also a good age for weekly excursions to the public library. The baby will be absolutely enchanted and stimulated by such a golden treasurehouse of books awaiting him. When at home he will spend hours thumbing through his selection of books and will want to be read to often. A toddler who is hampered by poor eyesight is especially appreciative of books with large, bold, and uncluttered pictures which describe realistic objects and happenings. Books about trucks, cars, machines, etc., seem to be the most appropriate for him because he can accurately identify with them in actuality as well as the corresponding sounds they make.

As expected, the child will never have the visual acuity to physically see airplanes in flight but his books will recreate a realistic view of them. When he actually hears one, he will be jubilant in having identified and related to the sound. Recommended books are: *All Kinds of Signs* (Seymour Mait); *1, 2, 3's* (Brian Wildsmith); *Discovering Shapes* (Tina Thoburn); *Food Is for Eating* (Illa Podendorf); *Trucks, Tractors and Trailers* (Lemuel B. Lime); *Airplanes and Trucks and Trains, Fire Engines* (George Zaffo); *The Little Engine That Could* (Watty Piper); *Count and See* (Tana Hobar); and *ABC of Cars and Trucks* (Anne Alexander).

An ideal and thoughtful birthday gift for a young child is a collection of pictures from magazines of his favorite objects arranged in a scrap book. Other cherished presents include the Matchbox series of cars and trucks as well as large-scale, operable machines such as trailer trucks and fire engines.

□ Television can be another excellent source of visual stimulation, especially when located at eye level. If at all possible, let the child discover "Sesame Street" and "The Electric Company" on TV after he has experienced his books so that he may relate to the programs from personal knowledge. These two choices will captivate his imagination and will encourage him to use his visual

Inform doctors of results

Two Years Old

Recommended books

Pictures and toys

Television

and auditory pathways to full capacity. However, TV must not be an all inclusive form of entertainment for a toddler, but rather an assistance to his education and play time. The television should be turned off after he watches specified programs or his attention is diverted elsewhere.

Books, music, television, games, and assorted toys play a vital role in a preschooler's world; this is especially true for the child who has limited eyesight. When watching TV, he must be especially attuned to the rapidly moving images appearing before him in order to fully comprehend the picture. To recognize the shapes or words in his books, a visually impaired toddler needs to concentrate in order to decode the written symbol. In fact, whatever he does, he has to concentrate with all his faculties in order to achieve his goals.

□ The components of every program of visual stimulation must be considered as basic building blocks which cannot be constructed without a solid foundation: his parents. Their attitudes are reflected in their visually impaired preschooler. His foundation consists of being accepted as a person in his own right by "his people." The parents' own feelings of security and natural love for their child are primary factors for the achievement of acceptance. This is mirrored in the child's positive attitude toward learning and his ability to adjust to new situations. There is no substitute for human warmth and love. A mother's continuing positive responses to her baby sets the stage for visual stimulation at every level of maturation. His reactions to her are the core of his internal mechanisms. When the relationship between parent and child is generally unsatisfactory, a child's foundation in life is extremely tenuous and the subsequent framework is brittle. A stable concept of self dictates a child's future emotional development as well as his own standard of achievement (Beadle, 1970, pp. 265-266). Without self-determination, his architectural brainwork will crumble. A parent must supply a concretely structured environment for the baby. Then, and only then, can a program of visual stimulation succeed.

□ In summary, a partially seeing baby needs to be visually challenged and aided. The overall guidelines involved in the program of visual stimulation are as follows:

1. To create an atmosphere in which a visually impaired baby can incorporate the external stimuli of his environment into meaningful patterns which he can apply to his needs and expectations. This will help him accurately construct hypotheses about the world around him.
2. To perpetuate physical and mental ability in every aspect of a child's development. In this way he will acquire a vital stamina for life.
3. To objectively recognize the importance of a child's self-image and need to be accepted as he tries to cope with his visual incapacity. It should be stressed that the child is constantly attempting to overcome and compensate for his physical disability and its various ramifications.
4. To maximize and highlight all sensory input-output mechanisms and perceptual ability within the visually impaired child himself.
5. To recreate the realities of normal sight through various but ingenious methods. The child's artistic endeavors and dexterity should be emphasized and utilized whenever possible.

The Parents

Summary

When it comes to Electronic Visual Aids for the Partially Sighted, Why Choose Visualtek?

Here are **FOUR** good reasons:

1 THE BEST PRODUCTS

Highest quality *consistently*, maximum flexibility in usage because of 'tailored configurations' to meet the needs of each individual user or agency, unexcelled versatility.

2 SERVICE AND SUPPORT

Not only when there's an occasional equipment problem, but also in a variety of other ways; support of organizations like AAWB, NFB, and ACB; free literature in any quantity; program participation at all levels; and advice and assistance to obtain maximum benefit from your electronic visual aid. We've even serviced our major competitor's equipment, for a major government agency, when they needed prompt and effective repair of a malfunction!

3 LEADERSHIP AND COMMITMENT

Visualtek was founded almost three years ago with the primary objective of "helping the partially blind to become partially sighted", and Visualtek has followed

through on this commitment by being the first to develop and produce a Typewriter Accessory for electronic visual aids, Margin Stops, Forward Viewing ("blackboard viewing"), and a variety of other useful features and accessories. But we didn't stop there; the latest result of Visualtek's extensive research and development activities is the Miniviewer, a product for which no comparisons can be made because there is nothing like it! This is *commitment!*

4 HIGH VOLUME AND LOW PRICES

With over 6,000 square feet of space for production of electronic visual aids (and related administrative functions), Visualtek has achieved the highest production volume of any supplier of electronic visual aids, and has *lowered its prices* to pass along the resulting savings to its satisfied customers. With some configurations starting at \$895, Visualtek offers the same savings to *all* its customers, not just a favored few who can negotiate for low prices. We've worked hard to earn our reputation, and we'll work harder in *every single case* to make sure it isn't tarnished . . . that's a promise.

These are the reasons we say, with pride . . .

VISUALTEK *Helping the partially blind to become partially sighted!*

WHERE IS YOUR NEAREST VISUALTEK REPRESENTATIVE?

Arizona: Phoenix
California: Sacramento, San Francisco Bay Area, Los Angeles, San Bernardino, Santa Barbara, San Diego
Connecticut: see New England
Delaware: Wilmington
Florida: Miami, St. Petersburg, Jacksonville, Tallahassee
Georgia: Atlanta
Hawaii: Wailuku *
Idaho: Boise *
Illinois: Chicago, Rockford *
Indiana: Fort Wayne
Louisiana: Baton Rouge, New Orleans
Maine: see New England
Maryland: Baltimore
Massachusetts: see New England
Michigan: Grand Rapids*, Detroit*
Minnesota: Milwaukee
Mississippi: Jackson
Missouri: St. Louis
New England: Boston
New Hampshire: see New England
New Jersey: New York City, Philadelphia, Park Ridge
New Mexico: Albuquerque*, Santa Fe*
New York: New York City, Albany, Syracuse*, Buffalo
Ohio: Cleveland, Dayton
Oklahoma: Tulsa, Oklahoma City
Oregon: Seattle
Pennsylvania: Philadelphia, Pittsburgh, Scranton
Rhode Island: see New England
Texas: Dallas, Fort Worth, Houston, Austin, San Antonio
Utah: Salt Lake City
Vermont: see New England
Virginia: Richmond
Washington: Seattle
Wisconsin: Milwaukee

**Demonstrations can be arranged in these areas, even though there is no resident Visualtek representative.*

All other areas listed, plus Ontario and British Columbia, are served by nearby Visualtek representatives.

6. To reinforce a child's self-determination by incorporating novel situations and fresh ideas into the program of visual stimulation which might appeal to him. Re-evaluate a visually handicapped baby's requirements and interests at every age-level so as to permit him to reach his optimum capacity.

7. To ingrain specific and prerequisite facts in preparation for necessary intellectual endeavors. At two years, a visually impaired baby is capable of digesting numbers and words at an incredible rate. Learning while still an infant may spare him certain obstacles he will encounter at school.

8. To insure a healthy future for a visually impaired infant through a joyous approach, a positive attitude, and careful examination of his medical prognosis.

Anapolle, L. Vision problems in developmental dyslexia. *Journal of Learning Disabilities*, 1971, 4, 77-83.

Beadle, M. *A child's mind: How children learn during the critical years from birth to age five*. New York: Doubleday, 1970.

Birch, H. G. The role of motivational factors in insightful problem solving. *Journal of Comparative Psychology*, 1945, 38, 295-319.

Bower, T. G. R. The visual world of infants. *Scientific American*, 1966, 215 (6), 80-92.

Doman, G. *How to teach your baby to read: The gentle revolution*. New York: Random House, 1963.

Doman, G., & Delacato, C. *The Doman-Delacato early reading kit (and mobility scale)*. Philadelphia: The Rehabilitation Center at Philadelphia and the Institutes for the Achievement of Human Potential, 1960.

Dorward, B., & Barraga, N. *Teaching aids for blind and visually limited children*. New York: American Foundation for the Blind, 1968.

Edwards, R., Alley, G., & Snider, W. Academic achievement and minimal brain dysfunction. *Journal of Learning Disabilities*, 1971, 4 (3), 134-138.

Kagan, J. Do infants think? *Scientific American*, 1972, 226 (3), 74-82.

Krippner, S. On research in visual training and reading disabilities. *Journal of Learning Disabilities*, 1971, 4 (2), 66-76.

Lowenfeld, B. *Our blind children: Growing and learning with them*. Springfield, Ill.: Charles C Thomas, 1964.

Peddler, K. The eye as a computer. *Science Journal*, 1970, 6 (2), 49-56.

Pines, M. Jerome Bruner maintains infants are smarter than anybody thinks. *New York Times Magazine*, November 20, 1970, pp. 22-23.

Ratliff, F. Contour and contrast. *Scientific American*, 1972, 226 (6), 90-101.

Silver, L. A proposed view on the etiology of the neurological learning disability syndrome. *Journal of Learning Disabilities*, 1971, 4 (3), 122-133.

Trevor-Roper, P. *The world through blunted sight*. New York: Bobbs-Merrill, 1970.

Wolff, P. H., & White, B. L. Visual pursuit and attention in young infants. *Journal of Child Psychiatry*, 1965, 4, 473-484.

References

Acknowledgements

The author wishes to acknowledge the assistance extended to her in the preparation of this article by Kevin Hill, M.D., an ophthalmologist, and Edmund N. Ervin, M.D., a pediatrician.

A TRULY PORTABLE VISUAL AID



... FOR THE PARTIALLY SIGHTED, from Apollo Lasers. The Apollo "*PortaReader*"™ is a compact, portable reading machine weighing less than 30 lbs. It's small and light enough to take anywhere, even on the bus, ... and is priced to fit your budget.

The "*PortaReader*"™ is complete and features:

- ... high contrast picture — black on white or white on black at the flick of a switch.
- ... eye level viewing on a 12" monitor.
- ... zoom lens for a 5 to 30 times magnification, higher magnification available as an option.
- ... a standard feature permits use with a typewriter without adaptors or gadgets.
- ... built-in carrying handle.
- ... all for less than \$950.00.

An optional forward viewing and x/y reading table available. Ask for a demonstration now. Our representative will be pleased to show you the Apollo "*PortaReader*"™ and other models at no charge or obligation. Contact Apollo Lasers, Inc., 6357 Arizona Circle, Los Angeles, Cal. 90045. Telephone (213) 776-3343.



Apollo "*PortaReader*" — for people on the move

 **apollo
lasers inc**

- Flanders, J. P. A review of research on imitative behavior. *Psychological Bulletin*, 1968, **69**, 316-337.
- Lovaas, O. I., et al. The establishment of imitation and its use for the development of complex behavior in schizophrenic children. *Behavior Research and Therapy*, 1967, **5**, 171-181.
- Lovaas, O. I. *Reinforcement therapy*. 16mm sound film. Philadelphia: Smith, Kline, and French Laboratories, 1966.
- Paloutzian, R. F. Promotion of positive social interaction in severely retarded young children. *American Journal of Mental Deficiency*, 1971, **75**, 519-524.
- Ullman, L., & Krasner, L. *A psychological approach to abnormal behavior*. Englewood, N.J.: Prentice-Hall, 1969.
- Wolpe, J. & Lazarus, A. A. *Behavior therapy techniques*. London: Pergamon, 1966.
- Zigler, E. The retarded child as a whole person. In H. E. Adams and W. K. Boardman (Eds.), *Advances in experimental clinical psychology*. London: Pergamon, 1971.

Special acknowledgement is made to the following individuals for their valuable consultant contributions and assistance with this project: C. Eugene Walker, Ph.D., Department of Psychology, Baylor University; Billy D. Burleson, chief psychologist, Mexia State School; Malcolm Lauderdale, superintendent, Mexia State School; and the following from the Texas State Commission for the Blind: Vicki Sullivan, rehabilitation counselor, MH-MR; Robert Mosteller, placement specialist; Don Wharton, assistant state supervisor, MH-MR; Wayne Brumley, rehabilitation teacher consultant, MH-MR.

Acknowledgements

Guidelines for Contributors to the New Outlook for the Blind

The *New Outlook for the Blind* is a magazine for professionals in service to blind and visually handicapped persons and provides an impartial forum for all views.

The selection of material for publication is made by the editors, after a review by individuals professionally qualified in the subject. This usually requires six to eight weeks. Material already in print or planned for publication elsewhere is not generally considered.

☐ In general, articles for the *New Outlook* must:

- relate to or have implications for the field of work with blind and visually handicapped persons.
- be factually and statistically accurate, and make a contribution to knowledge and practice in this specialized field. (Authors are responsible for the accuracy of the statements in their articles, and are urged, where possible, to provide any additional supporting documentation which will aid reviewers in their evaluation.)

Articles

- be written in acceptable English that can be edited if necessary. (Authors may be asked to rewrite articles before acceptance. If major changes are made by the editors, the manuscript is returned to the author for approval before publication.)
- be 10 to 14 typewritten pages (approximately 2,500 to 3,500 words) in length. (Shorter articles, and longer ones if the subject warrants such treatment, will also be considered.)

☐ Letters to the editor (350 words or less) should be confined to correction of fact, information, or brief observation on any article or any new development in the field.

A "Comment" (350 to 1,000 words) may be a vehicle to express the author's point of view, to present new information or findings, to react reflectively to a problem or issue in this field, or to respond to material appearing in the *New Outlook*.

With contributions to both of these columns, the editors reserve the right to condense, edit for grammar, and decide on placement in either column.

In view of space limitations and editorial considerations, not all contributions can be published. Editorial decisions are, however, made only after extended reviews have been conducted. Material which focuses on personalities rather than on issues or ideas is not give priority.

☐ All material to be considered for publication in the *New Outlook* should be sent to New Outlook for the Blind, 15 west 16th Street, New York, New York 10011.

A covering letter should state that the material is for publication (and whether it

Letters to the Editor and Comment

Specific Instructions



A transcribed page of Braille is placed on the machine. Over it is placed a sheet of **BRILON**.

Pull down the clamp—pull the oven forward. Timer at 3 seconds lets you know the copy is made.

For full details, write or call:

R. H. Dasteel, President
American Thermoform Corporation
8640 East Slauson Avenue
Pico Rivera, California 90660
Telephone: (213) 723-9021

NOW — BETTER SERVICE TO BLIND READERS with

THERMOFORM 55 & BRILON*

**MAKE YOUR OWN EXCELLENT LOW COST BRAILLE COPIES
USING THE AMERICAN THERMOFORM BRILON DUPLICATOR**

Duplicates Braille or other embossed material quickly, easily, inexpensively. . . .

Hundreds of copies from a single transcribed master . . . original can be used again and again.

Reproduces relief maps, diagrams, illustrations, math symbols. . . .

Produces permanent copy, called **BRILON**. . . **BRILON** is durable paper-like plastic, not affected by moisture or soiling.

Thermoform 55 Brailon Duplicator is compact table model, easy to operate.

Ideal for school, agencies, volunteer groups;

* **BRILON** is a registered Trademark owned by American Thermoform Corporation

has been published previously or is under consideration by other journals) and should include the address of the author to whom correspondence should be sent.

The original manuscript and one copy (carbon or xerographic) should be submitted. (The author should retain a third copy for his files.)

All manuscripts must be typed on a standard typewriter, double-spaced throughout, with adequate margins, on 8½ x 11-inch paper (heavy duty, white, nonerasable bond).

☐ The author should prepare and submit with the manuscript a brief abstract, following the attached guide. This abstract will be published with the article and submitted to the Council of Abstracting Services which provides abstracts for the following journals: *Abstracts for Social Workers*, *dsh Abstracts*, *Language and Language Behavior Abstracts*, *Psychological Abstracts*, and *Sociological Abstracts*. (Articles in the journal are also indexed or abstracted in *Current Contents*, *Exceptional Child Education Abstracts*, *Excerpta Medica*, and *Rehabilitation Literature*.) Forms for preparing abstracts are available on request.

Abstract

☐ References in the text to the bibliography (which should be arranged alphabetically by author) should include the last name(s) of the author(s) and the date of publication in parentheses, e.g., (Silverman, 1970), (Terry & Shaffner, 1972).

References

The style used in the bibliography should follow the forms outlined in the American Psychological Association's *Publication Manual*, section 8, pp. 39-47. (The *Manual* may be purchased for \$1.50 from the APA, 1200 Seventeenth Street, N.W., Washington, D.C. 20036.)

Basically, citations for articles in journals should include author, title of article, title of journal, year, volume number, and inclusive page numbers, in the following form:

Silverman, William A. Prematurity and retrolental fibroplasia. *New Outlook for the Blind*, 1970, 64, 232-236.

When citing books, the information should include author, title, city, publisher, and year, in the following form:

Cholden, Louis S. *A psychiatrist works with blindness*. New York: American Foundation for the Blind, 1958.

For other bibliographic forms, see the APA *Publication Manual*.

Footnotes, which should be used as sparingly as possible, should be numbered consecutively in the text and listed at the end of the manuscript.

☐ The use of tables and graphs should be kept to a minimum. Where possible, interpretations of data should be included in the text rather than in tables or graphs. If included, tables should be typewritten on separate sheets of paper. Reference to each table should be made in the text. Line drawings and graphs should be drawn in black ink and be suitable for reproduction. (The APA *Manual* may be followed concerning style for figures, tables, graphs; see pp. 30-39.)

Tables and Graphs

☐ Photographs should be labelled on the back with the following information: author, title of article, number of photograph as cited in the text (optional), and a descriptive caption if appropriate. If taken by a professional photographer, indicate the appropriate credit line.

Photographs

OPTISCOPE[®]

Illuminated Enlarger System

MODEL C

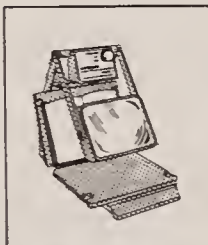
see any print
ILLUMINATED
and **ENLARGED**
in black and white
or full color

**A MORE
SELF-SUFFICIENT LIFE
FOR THE PERSON
WITH LOW VISION**

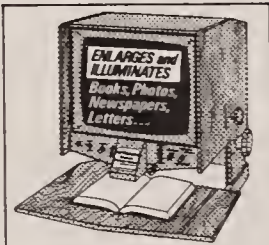
\$295

f.o.b. Hempstead, N.Y.

Also available from Opaque Systems Ltd.



Better Vision
Lens System
MARK V



Electronic
Enlarger System
ELECTRO CC 5000

The Optiscope Illuminated Enlarger System-Model C is a *new medical instrument* that now enables thousands of partially sighted persons and persons with low-vision capabilities to read books, newspapers, magazines and personal letters, or to view treasured photographs. All in black and white and full color.

The Optiscope projects an illuminated image on a large 9 in. x 14 in. polarized screen and the unique OPTILITE Comfort Control regulates the illumination for one's personal comfort. The unit is compact, portable (only 14 pounds) and simple to operate.

Also available from Opaque Systems Ltd., is the Better Vision Lens System-Mark V with the Optilite Comfort Control and the Electronic Enlarger System Electro-CC5000, a single unit, compact, self-contained closed circuit television system.

Write or call to order any of these low-vision aids or for additional information and color brochures.

Copyright © 1973, Opaque Systems, Ltd., Hempstead, N.Y. Patented, other U.S. and foreign patents pending. Specifications and prices subject to change without notice.

OPAQUE SYSTEMS LTD.

100 TAFT AVENUE, HEMPSTEAD, NEW YORK 11550, PHONE 516-485-3322

Hindsight

The Eyes of Texas Are Upon You

Others have said before me that, when it comes right down to it, blind persons are their own best advertising—or their worst. We create an image and are stuck with it.

Those of us who travel about, therefore, have a golden opportunity to do something about attitudes, although I am not entirely sure just what. Let me give an example of the sort of thing that creates this uncertainty. Bill Gallagher, who is another blind man who works for the Foundation, and I were on our way to the AAWB convention in Cleveland by plane. The third member of our group was a woman who was not blind. While she should remain nameless, I might say that she was a key member of the staff of the National Accreditation Council, and keenly interested in public attitudes toward blind persons. She had reason to be, because she had the job of guiding two of us, complete with canes and luggage. Naturally, Gallagher and I are two of the better sort: affable, charming, well-adjusted, and skillful. To face up to it, however, we were of no help whatsoever in helping to find our bags in the Cleveland terminal—much less were we able to do the gentlemanly thing and find the lady's luggage for her.

To digress a moment, have you—blind or sighted—ever considered just how difficult it is to describe your luggage to some one who has never seen it? The color factor is a special problem. Some one told you several years ago that your luggage was tan. I know people who can see who think tan is brown, or yellow, or beige, or off-white. I find it useful when traveling alone to let one of my ties hang out of the suitcase some length, making sure that it is a distinct and unquestionably sharp red. Of course, you have to be sure that you picked a red one out in the first place.

But back to Cleveland. Our companion decided to park Gallagher and me against a pillar where we would not obstruct traf-

fic and went off to do the luggage search for all three of us. I remember saying to Bill that I hoped she could find a porter and would not try to carry all of the bags by herself. Gallagher hoped so, too.

"You people sure do have courage," a voice suddenly said. "I sure do admire y'all. By golly, the way y'all fly around all over the place is really something, I do declare."

Gallagher and I reached the conclusion at the same instant that the man, clearly a Texan, was addressing us. After all, we know we are courageous and to be admired and really something, by golly.

"Why," he continued, "I got a little old mother down in Texas who won't go anywhere, much less get on an airplane, and there isn't anything wrong with her. What I mean is that she ain't suffering from a disablement like you fellers."

I cannot remember just what we replied to all this, and, at any rate, our companion returned shortly with luggage and porter. The Texan said how fine a "little lady" she was and could be of assistance in transporting us to our destination. She declined for all of us, and Gallagher and I kept silent. In the taxi, we asked her why she had refused the offer. It seems he was brandishing a tumbler in one hand that was three-quarters full of Texas nectar.

Dilemma

Speaking of Gallagher, he took a telephone call at the Foundation recently from the Manhattan personnel manager of one of America's "big three" automobile companies. It seems that a blind person had applied for a job, probably in the developing area of computers, read-outs, and braille displays—and all that new-fangled sort of thing. The personnel manager spent nearly an hour on the telephone getting pretty good answers to his questions of how a blind person gets a job done. The answers were as good as any of us can give without knowing either the job

or the applicant. The punch line is that, at the end of the conversation, the personnel man confessed to Bill that he was reluctant to let the blind man come in for an interview because he might have to reject him. He thanked Bill effusively, calling him Mr. Barnett. Oh well, we all look alike.

Absentblinded?

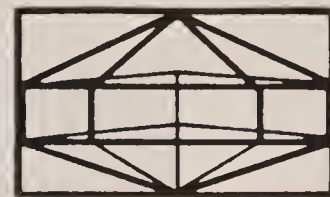
I am convinced that being able to see is quite a boon to memory, or at least memory in the sense of remembering to put the car in the garage, take out the trash, or that it is your wife's birthday. You happen to look up from your book or your reveries or open your eyes after a good night's sleep and there you perceive the car or the trash or your wife. A little bell rings and no one ever is the wiser that you had forgotten all three.

But if you cannot see, look out. You put your brief case near the front door to remember to take it with you on a trip. You, being normal, forget it. Not seeing it as you go through the door, you continue to forget it. I call this phenomenon absent-blindedness. I am not so sure, however, that this is a good explanation for forgetting a wife's birthday.

The Sleeping Blind

I received a thoughtful letter a few weeks back from a blind man with an idea that he believes would be helpful to the sleeping blind. Now, we get quite a lot of mail from blind people interested in helping other blind people, or, more exactly, suggesting things that the Foundation might do for blind people. I had never been forced to concern myself about the sleeping blind, but I assure you that I am not now one of them. I mean I am losing sleep over the problem this correspondent presented.

You see, he is concerned about how blind people protect themselves from being bitten by cockroaches while they are asleep. Yes, you heard me.



PELCO'S ELECTRONIC VISUAL AID...

A Valuable Tool for the Blind

Yes, many legally blind or visually handicapped people can now be trained to **read and write** with our new Electronic Visual Aid System.

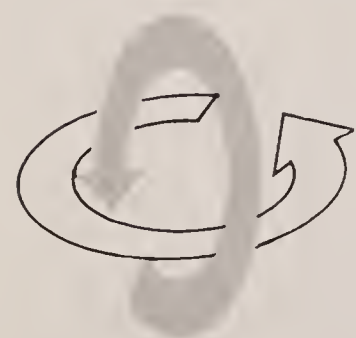
Pelco, with 16 years experience in the field, has designed a high resolution closed circuit television system providing normal black on white viewing, or the reverse, with white on a black background.

FEATURES

- ☐ Portable, can be rolled from room to room and can be stored in a secure area to preclude vandalism
- ☐ Large 17" screen
- ☐ Complete plug-in unit, no loose components
- ☐ Magnification is variable - from 8x to 40x
- ☐ One year warranty
- ☐ Servicing available from over 1000 authorized Pelco dealers

New Low Price - \$1395 complete, for the portable system (LVA 501) shown upper left, and only \$1295 for the same system, (LVA 401) less table. (shown below)

MODEL LVA 501



**PELCO
SALES
INC** ●

351 E. ALONDRA BLVD.
GARDENA, CALIFORNIA 90248
PHONE (213) 321-5591
TELEX: 67-7402

MODEL LVA 401



He presented his solution, and he went into considerable and precise directions for the guidance of other blind people. Perhaps it should be added as a section in the next edition of the *Step-By-Step Guide to Personal Management*. (By the way, this publication has turned out to be the Foundation's best seller, probably because of its many critics who have given it much advertising.) But, getting back to the cockroaches, his idea is that one puts a large open-ended can under each of the four bedposts, and then fills each can with 30-weight automobile oil. No sensible cockroach will try to swim the moat that is thus

placed in his path.

I found this subject somewhat disturbing, but somehow refreshing. Our helpful friend has exposed, for the first time in history, a very practical problem that no one has ever before had the courage to bring up in mixed company. He also has offered a down-to-earth solution.

I should add that he not only is a contributor to knowledge, but also a contributor to finance—always a problem to agencies. He enclosed a dollar bill to help with the expense of putting his directions for safety against cockroaches in braille. Honestly, I didn't make this up!

And I Do Mean You

'Twas the month before Christmas,
And all through the Foundry,
Many creatures were stirring and
making such soundry,
Orders for aids were piled to the
ceiling,
And blind people galore were
impatiently squealing.
I wonder why they are forever fumin'
Probably because they are only human.
With apologies to Ogden Nash and Dorothy Parker, I close by wishing a Merry Christmas to all and a Happy New Year.

—M.R.B.

Current Literature

A report of significant new additions to the Migel Memorial Library of the American Foundation for the Blind, prepared by Mary Maie Richardson, chief librarian.

Improving Library Services to the Blind, Partially Sighted, and Physically Handicapped in New York State: A Report Prepared for the Assistant Commissioner for Libraries, by Sam Prentiss. Albany, New York, The University of the State of New York, The State Education Department, January 1973, vii + 102 p. As stated in the foreword "this report describes the present state of library services to the blind and visually handicapped in New York State, examines the environment in which it functions and recommends further improvements through State legislation and the cooperative efforts of libraries and other public and private agencies." A limited number of copies of the report are available. Requests should be addressed to Mr. R. Edwin Berry, The University of the State of New York, The State Education Department, Division of Library Development, 99 Washington Avenue, Albany, New York 12210.

Reading Materials in Large Type. Reference circular. Library of Congress, Division for the Blind and Physically Handicapped (Washington, D.C. 20542), August 1973, 16p. Available free from the Library of Congress, this list is divided into three sections: Producers of Large Type; Large Type Books for Reference and Special Needs; and Further Sources of Large Type Materials.

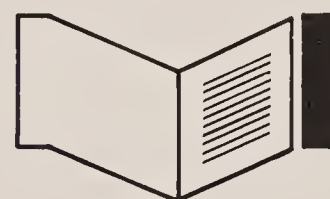
Teaching English to the Visually Handicapped, by M. J. Tobin, Norma Norris and Rita Irving. *The Teacher of the Blind* (Royal School for the Blind, Church Road North, Wavertree, Liverpool, L156TQ, England), Vol. 61, No. 4, July 1973, pp. 104-113. This is the summary section of a report entitled "Aims and Methods in the Teaching of English to the Visually Handicapped" by the University of Birmingham's Research Centre for the Education of the Visually Handicapped. Practicing teachers in Great Britain cooperated by means of seminars, conferences, individual interviews and detailed teaching diaries in the year-long investigation which formed the basis of the report.

True Sportsmanship in Vienna, by David Castleton. *St. Dunstan's Review* (191 Old

Marylebone Road, London NW1 5QN, England), No. 644, August 1973, pp. 14-18. Report on the first Austrian International Games for the Blind held in Vienna during June of 1973. Competitors were divided into age groups and one group of women. There were five events: 50 meter sprint; shot put; long jump; medicine ball; and sling ball.

Underestimation is Predetermination, by Mary Margaret Meyers, S.S.J. *The Rehabilitation Teacher* (The National Braille Press, Inc., 88 St. Stephen Street, Boston, Massachusetts 02115), Vol. 5, Nos. 8-9, August/September 1973, pp. 21-31. Detailed description of the author's experiences in teaching blind clients how to make macramé bags and belts.

The St. Raphael's Experience: Coming of Age in New England, by Frederick Picard. *The Rehabilitation Teacher* (see address above), Vol. 5, Nos. 8-9, August/September 1973, pp 3-19. Text of a paper presented at the 1973 National Convention of the American Association of Workers for the Blind in Cleveland, Ohio, July 25, 1973, describing the program at St. Raphael's Geriatric Adjustment Center in Newton, Massachusetts.



Sensi-Quik

The Touch Cane for Walking
Faster with Safety

Sensi-Quik's Contour Handle Arranges the Fingers for Quick Touching and Effective Control

Sensi-Quik, with its tapered tubular construction, white fiberglass stock, delivers maximum visibility for signaling and is attractive in appearance. Red band at tip is optional. The smart smudge-proof contour handle is of glistening black vinyl. Its "trail-off" grip fits any hand—arranges fingers and thumb for effective "clamping" to aid the wrist in effective cross-action. Black vinyl crook handle also available. We likewise supply an extra-strength nickel-plated steel shaft which averages about three ounces heavier than the fiberglass model. Recommended for travelers who depend on a cane for support or who desire a cane for extra strength.

The Sensi-Quik is not sold but is supplied on payment of a six dollar membership fee either directly to anyone who joins the Go-Sees or through agencies serving the blind. Along with the Sensi-Quik cane, the Go-Sees provide the booklet "Touch and an Occasional Tap," available on disc or tape or in print; braille edition only on a loan basis. Persons or agencies interested in the Sensi-Quik cane are invited to contact

Sensi-Quik's Carbide Tip Touches Sharply, Resists Wear



The Go-Sees, 166 East 92nd Street, New York, New York 10028

The Effect of Bioptic, Telescopic Spectacles upon the Self Concept and Achievement of Low Vision Students in Itinerant Programs, by Dennis Kevin Kelleher. University Microfilms, Inc. (300 North Zeeb Road, Ann Arbor, Michigan 48106). Doctoral dissertation, University of California, Berkeley, 1972 viii + 134 p. Order #72-23,346, \$10.00. The use of a low vision aid for distance viewing was studied as to its effect on attitude and achievement of five visually impaired students enrolled in the Cali-

fornia public schools.

Beacon Lodge—Camp for the Blind, 25th Anniversary Pamphlet, 1948-1973, edited by Mrs. Edgar J. Neiman. Beacon Lodge, Camp for the Blind (P.O. Box 222, Lewistown, Pennsylvania 17044), 1973, 57p. This illustrated pamphlet contains articles concerning the establishment and development of the camp and brief biographies of various individuals who have played a significant part in its history. Much of the fi-

nancial support for the camp comes from the Lion Clubs of Pennsylvania.

Ho'opono; an Introduction to State of Hawaii Rehabilitation Center for the Visually Impaired. Division of Vocational Rehabilitation (Services for the Blind Branch, 1901 Bachelot Street, Honolulu, Hawaii 96817), 1973. 10 p. Description of the services offered at the rehabilitation center, the name of which is an Hawaiian word meaning "to make things right."

ADDITIONAL LISTINGS

A classified listing of books, articles, directories, pamphlets, and other material of interest to the readers of the New Outlook for the Blind prepared by the editors.

Agency Administration

The High Cost of Delivering Services, by Alan R. Gruber, *Social Work* (National Association of Social Workers, 49 Sheridan Avenue, Albany, New York 12201), Vol. 18 No. 4, July 1973, pp. 33-40. As they become more dependent on public funds, private agencies will be called upon, increasingly, to account for the use of those funds.

Manual on Volunteer Services in Public Welfare Social Services. U.S. Government Printing Office (Washington, D.C. 20402), DHEW Publication No. SRS 72-05302, Stock No. 1760-0108, 1972, 46p. Guidelines are given for designing and implementing a voluntary services program in public welfare. Copies of the manual are available for 50¢ from the Superintendent of Documents at the above address.

Aging

Creative Programming for Older Adults; A Leadership Training Guide, by Florence E. Vickery. Association Press (291 Broadway, New York, New York 10007), 1972. 320p. \$12.95. A training manual for agency staff and volunteers in three parts. The first section considers the impact of technology on the elderly; the second part examines the effects of aging on social functioning; and the third deals with the development and administration of social programs for the elderly.

Independent Living for the Elderly, by Betty R. Hasselkus and Jean M. Kiernat. *American Journal of Occupational Therapy* (American Occupational Therapy Association, 251 Park Avenue South, New York, New York 10010), Vol. 27, No. 4, May-June 1973, pp. 181-188. Independent Living for the Elderly, a community-based program in Madison, Wisconsin is described. The relevance of occupational therapy expertise to the program is also discussed.

Consumerism

Basic Rights of the Mentally Handicapped: Right to Treatment, Right to Compensation for Institution-Maintaining Labor, Right to Education, by the Mental Health Law Project. Mental Health Law Project (1751 N Street, N.W., Washington, D.C. 20036). 123p. \$1.25 a copy; \$1 a copy for 20 or more. In addition to a discussion of basic legal rights of the mentally retarded, some prototype legal cases are described, as well as some court ordered standards and provisions for the mentally ill resulting from the litigation.

Recreation

An Alternative to the Therapeutic Model in Therapeutic Recreation, by Herbert Rusalem. *Therapeutic Recreation Journal* (National Therapeutic Recreation Society, 1700 Pennsylvania Avenue, N.W., Washington, D.C. 20006), Vol. 7, No. 1, First Quarter 1973, pp. 8-15. Molding the individual to the environment is an approach designed to fail in rehabilitation, since the environment is one which calls for con-

tinuously escalating human adjustments. A more effective approach might be the ecological one—which addresses itself to developing a society which is more amenable to the disadvantaged and the disabled. The implementation of such a program is discussed.

Efforts to Adapt National Forest Recreation Areas for Use by the Handicapped, by Arthur J. Carroll. *Therapeutic Recreation Journal* (National Therapeutic Recreation Society, 1700 Pennsylvania Avenue N.W., Washington, D.C. 20006), First Quarter 1973, pp. 41-45.

Research

Research Readings in Rehabilitation Counseling, by Harold A. Moses and C. H. Patterson. Stipes Publishing Co. (10-12 Chester Street, Champaign, Illinois 61820), 1973. 429p. \$8.60. Fifty-four readings grouped into 12 main subject heads which include: "Production and Utilization of Research," "Sheltered Workshops and Rehabilitation Centers," "Contributions of Other Professions and Their Integration," and "Psychological and Social Aspects of Disability."

Social Work

The Good Bureaucrat, by Robert Pruger, *Social Work* (National Association of Social Workers, 49 Sheridan Avenue, Albany, New York 12210), Vol. 18, No. 4, July 1973, pp. 26-32. Rather than attempting to escape the organizational environment surrounding them, social work practitioners should sharpen certain bureaucratic skills

Classified Listings

Rates. Non-display—\$2.00 per line (minimum: \$10.00); Display—\$13.00 per column inch (minimum: one inch). Anonymous, box-numbered ads are only accepted for personnel listings. Advertising is subject to editorial approval. A rate and information card is available on request. All correspondence should be directed to the Classified Advertising Department, New Outlook for the Blind, 15 West 16th Street, New York, N.Y. 10011.

AIDS AND APPLIANCES

Instruments, Recreation Equipment. Complete catalog on request. Science for the Blind, Bala-Cynwyd, Pa. 19004.

Braille Watches. Made in Switzerland. Wide selection of standard and deluxe models. From \$19.95. Catalog in print or braille sent on request. Aids and Appliances Division, American Foundation for the Blind, 15 West 16th Street, New York, N.Y. 10011.

Aud-a-Ball. Sound-source recreation ball for the visually limited. Catch it, kick it, throw it. Locate it by sound. Science for the Blind, Bala-Cynwyd, Pa. 19004.

CATALOGS

Science for the Blind—Catalog on request—221 Rock Hill Road, Bala-Cynwyd, Pa. 19004.

International Catalog of Aids and Appliances for the Visually Impaired, edited by Leslie L. Clark. 224p. \$2.00. Publications Div., AFB, 15 W. 16th St., New York, N.Y. 10011.

Optacon Catalog—products and services—a complete listing of Optacon Systems, Accessories, Training Course, and Training Material prices. Products are also pictured and described in detail. Write Telesensory Systems, Inc., 2626 Hanover Street, Palo Alto, California 94304

ORGANIZATIONS

JOIN AEVH!

The Association for Education of the Visually Handicapped offers three publications, conferences at the national, regional, and local levels, and opportunities for communication with fellow professionals interested in the education of visually handicapped children. For information write AEVH, 1604 Spruce Street, Philadelphia, Pa. 19103.

A.A.W.B.

New services provided by the American Association of Workers for the Blind are outlined in the September 1973 issue of News and Views. For further information regarding membership in AAWB for professional growth and communication write to the AAWB, 1511 K Street, N.W., Suite 637, Washington, D.C. 20005.

EVATONE THIN VINYL SOUNDSHEETS...
LOW COST COMMUNICATION TOOL FOR THE BLIND

This year the Library of Congress Division for the Blind and Physically Handicapped has used over 1 million Evatone Soundsheets. This is the fourth year that soundsheet inserts are being used in TALKING BOOK TOPICS, and now US NEWS AND WORLD REPORT publishes its magazine weekly on Evatone Soundsheets. They record two hours of news on each soundsheet which is played at the 8-1/3 rpm speed.

The Evatone Research Dept. has worked since 1965 to perfect the 8-1/3 rpm soundsheet. This progress has produced a soundsheet of good quality at a very economical price.

Soundsheets need not be manufactured in large quantities to be affordable. Whether your needs call for 500, 5,000, or 500,000 copies, the 8-1/3 rpm Evatone Soundsheet is a practical, inexpensive way to communicate in sound.

There have been a variety of different uses of Soundsheets for blind and physically handicapped people. Last year the State of Illinois used Evatone Soundsheets to inform blind people of the proposed changes in their state constitutions. In other states rehabilitation agencies are using Evatone Soundsheets for bulletins and newsletters. Publishers,

educators and advertisers have successfully used Evatone Soundsheets for almost 10 years.

Consider Evatone Soundsheets for your next project. It's a good way to talk personally and directly with blind and physically handicapped people. Would you like to know more about Evatone Soundsheet and receive some samples? Just clip and mail the coupon below.

EVATONE
SOUNDSHEETS

2051 Waukegan Road Deerfield, Illinois 60015 312-945-5600

Send me free samples & prices of Soundsheets for the blind.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

TOWN _____ STATE _____ ZIP _____

in order to "negotiate" that environment.

Statistics

Characteristics of Residents in Nursing and Personal Care Homes: United States, June-August 1969.

National Center for Health Statistics, Health Services and Mental Health Administration, U.S. Public Health Service. *Vital and Health Statistics* (available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402), Series 12, No. 19, DHEW Publication No. (HSM) 73-1704, February 1973, iv + 41p. 75 cents. Data from the National Health Survey by age, color, sex, and marital status.

Testing

A Unified ADL Evaluation Form, by Susanne W. Donaldson, Conlin C. Wagner, and Glen E. Gresham. *Archives of Physical Medicine and Rehabilitation* (American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago, Illinois 60602), Vol. 54, No. 4, April 1973, pp. 175-179, 185. This activities of daily living form incorporates self-care and mobility variables most commonly used in 25 scales published between 1950 and 1970. Copies are available from Dr. Gresham, Dept. of Physical and Rehabilitation Medicine, Tufts University School of Medicine, 185 Harrison Avenue, Boston, Massachusetts 02111.

Vocational Rehabilitation

Some Comments on the "Delivery of Service," by Simon Ilshansky. *Rehabilitation Literature* (National Easter Seal Society for Crippled Children and Adults, 2023 West Ogden Avenue, Chicago, Illinois 60612), vol. 34, No. 7, July 1973, pp. 203-206. The author, formerly a counselor with the Massachusetts Division of Vocational Rehabilitation, asserts that the DVR system "does not provide a good quality of services to enough clients to justify continuing DVR without major changes." In support of this assessment he says that the DVR disregards the needs of its clients, denies them decision-making powers regarding their own lives, and robs them of dignity.

In Brief



■ At its June meeting the National Accreditation Council's Commission on Accreditation granted accreditation to Vocational Rehabilitation for the Blind, State of Mississippi, and to the Wisconsin School for the Visually Handicapped, Janesville. There are now 49 accredited agencies and schools in 30 states and the District of Columbia.

■ Research to Prevent Blindness, Inc. (RPB) has granted its \$25,000 RPB Trustees Award for outstanding achievement in eye research to an ophthalmologist "whose work has saved the sight—and the lives—of hundreds of children stricken with a deadly form of eye cancer." Dr. Algernon B. Reese, developer of the Tumor Clinic at the Columbia-Presbyterian Medical Center in New York City, perfected a method of treating retinoblastoma without sacrificing the vision of the patient. The disease is a hereditary, highly malignant and potentially fatal tumor of the retina which occurs in young children. Dr. Reese, 77, is considered the world's foremost authority on tumors of the eye, and in 1951 wrote *Tumors of the Eye*, the first authoritative text on the subject.

■ The next bi-ennial conference of the Australian and New Zealand Association of Teachers of the Visually Handicapped will be held in Brisbane, Australia January 13 to January 20th, 1974. The conference will focus on visual perceptual problems of the partially sighted and visually handicapped slow learners. For registration forms and other information write the Secretary, Australian and New Zealand Association of Teachers of the Visually Handicapped, C/O Narbethong School, Salisbury Street, Buranda. 4102. Q. Queensland, Australia.

■ Braille editions of five social security publications have been announced by the U.S. Department of Health, Education, and Welfare. The publications are *Estimating Your Social Security Retirement Check*, *Disability Benefits for Blind People*, *Your Medicare Handbook*, *Your Social Security*, and *If You Become Disabled*. They are available at rehabilitation centers, regional libraries, schools, state agencies, and national organizations for the blind. In addition, interested persons can obtain more information on the publications at local social security offices.

■ The delivery of social and rehabilitation services in the future is the subject of a recent government memorandum. The "in-house" paper was presented at an "oversight" hearing on vocational rehabilitation, conducted by the Select Education Subcommittee of the House Committee on Education and Labor. Copies of the transcript of the hearing can be obtained from the select Education Subcommittee, Room 2178, Rayburn House Office Building, Washington, D.C. 20515.

■ A cooperative project in which large-print books are exchanged has been initiated by the Ogdensburg Public Library in New York and the Brockville Public Library in Ontario, Canada. Each library will loan the other 50 titles for four-month periods.

■ An art exhibit for the blind, featuring 20th century ceramics, was recently on display at the Krannert Art Museum of the University of Illinois at Urbana-Champaign. Works were labeled in large print and braille, and visitors were encouraged to touch them. The show grew out of enthusiasm for a sculpture exhibit for the

blind sponsored by the University last summer. Plans are being made for similar displays in the near future.

■ "Stigma I" and "Stigma II," two documentaries about physical disability, are available on cassette tapes. The documentaries were produced by the Center for Independent Living, Inc., in Berkeley. On the first program, blind and disabled people tell how they feel about their disabilities, and how society reacts to the handicapped. The second program focuses on organization and discusses some of the things disabled people can accomplish when they work together. The cost of both tapes to welfare and rehabilitation counselors is \$10.25. They are available at cost, \$3, to blind persons. To receive a copy of the tapes and for more information, write Center for Independent Living, 2725 Haste Street, Suite 207, Berkeley, California 94704.

■ The New York State Department of Social Services recently inaugurated a new "round-the-clock" child abuse and neglect reporting and follow-up program. Under the new system, all local welfare departments have installed 24-hour-a-day, seven-day-a-week programs which accept and act on reports of child abuse or neglect. Under the terms of the Child Protective Services Act of 1973, those making reports on suspected child abuse or maltreatment are protected from civil or criminal liability. The same law requires police officers, physicians, other medical and dental personnel, school officials and social service workers to report suspected cases, or face civil and criminal penalties if they willfully fail to report. The law gives "new muscle" to the state Child Abuse Register, established in 1966, which shows a 700 percent increase of reporting from 1966-1972. In spite of the increased reporting, a recent study found that the 3,319 suspected cases reported in 1972 were perhaps only a tenth of those the department should have heard about.

■ The Hadley School for the Blind is requesting consumer assistance in planning new correspondence courses. Depending

on the response, the Hadley may offer a course, or courses, in one or more of the following subjects: "Braille Speed Reading"; "Courtship, Marriage, and Family"; "Career Training for Legal Secretaries"; "Home Repairs by the Blind Householder"; "How to Write Legible Script"; "You and Your Eyes (hygiene, disease, treatment)"; "Great Religions of the World"; "Playing to Win at Chess"; "Listening for Pleasure and Profit"; and "Astrology for Fun and Conversation." Persons who want to participate in the selection should send a list of the three courses they would most like to see added to the Hadley curriculum to the research department, The Hadley School for the Blind, 700 Elm Street, Winnetka, Illinois 60093.

■ The American Association of Community and Junior Colleges maintains a Career Staffing Center for its member institutions and those individuals who would like to be considered for staff positions at more than 900 member colleges. For more information write AACJC Career Staffing Center, P.O. Box 298, Alexandria, Virginia 22314.

Appointments

■ National Eye Institute: **Dr. Elmer J. Balintine**, clinical director; **Edward McManus**, executive officer.

■ Penrickton Center for Blind Children: **Richard McMillen**, director.

■ American Foundation for the Blind: **Barbara D. McGarry**, specialist in governmental relations.

■ National Braille Association: **Marjorie S. Hooper**, executive secretary.

■ American Foundation for the Blind: **Bernard Epstein**, manager of aids and appliances division.

Awards

■ University of Buffalo, Lucien Howe Gold Medal Award: **Dr. Arthur H. Keeney**, ophthalmologist-in-chief, Wills Eye Hospital and Research Institute, Philadelphia.

■ American Library Association: Exceptional Service Award of the Association of Hospital and Institution Libraries: **Robert S. Bray**, formerly chief of the Division for

the Blind and Physically Handicapped, Library of Congress; Francis Joseph Campbell Citation: **Marjorie S. Hooper**, formerly editor, American Printing House for the Blind, Louisville, Kentucky.

Coming Events

December 4-7 Council for Exceptional Children, Northeast Regional Conference, Boston, Massachusetts.

December 7-9 Association for Advancement of Behavior Therapy, Seventh Annual International Convention, Miami Beach, Florida.

1974

January 13-20 Australian and New Zealand Association of Teachers of the Visually Handicapped, biennial conference, Brisbane.

January 28-February 1 Council on Social Work Education, Atlanta.

March 14-17 Greater Washington Area Council of Adoptable Children, Fourth North American Conference, Washington, D.C.

April 14-19 Council for Exceptional Children, 52nd Annual International Convention, New York City.

April 25 Association for Research in Vision and Ophthalmology, Annual Spring Meeting, Lido Beach, Florida.

May 7-8 National Braille Association, Regional Meeting and workshops, El Paso, Texas.

May 19-24 National Conference on Social Welfare, Cincinnati.

May 24-25 International Association for the Prevention of Blindness, Conference on the Prevention of Impaired Vision and Blindness, Paris.

June 2-7 American Association on Mental Deficiency, 98th Annual Meeting, Toronto.

June 9-14 Special Libraries Association, Toronto.

June 16-24 World Conference of Physical Therapy, Montreal.

June 17-28 American Home Economics Association, Atlantic City, New Jersey.

June 24-29 Association for Education of the Visually Handicapped, San Francisco.

July 28-August 2 International Association of Applied Psychology, 18th International Congress, Montreal.

INDEX

THE NEW OUTLOOK FOR THE BLIND

VOLUME LXVII, 1973

New York, 1973
American Foundation for the Blind
15 West Sixteenth Street

Inclusive page numbers for each issue:

January	1-48	June	241-288
February	49-96	September	289-336
March	97-144	October	337-384
April	145-192	November	385-432
May	193-240	December	433-480

INDEX

THE NEW OUTLOOK FOR THE BLIND

VOLUME LXVII, 1973

- Abel, Georgie Lee, 144
- Abuse, child and visual impairment, 241-50
- Accountability of non-profit institutions, 389-95
- Accreditation
- assessment of, 6
 - list, 189, 479
 - State Certification Requirements for Education of the Handicapped*, 330
 - state administrators call for, 71
- Adams, James S., 240
- Adrian, Robert J., 141
- Adventitiously blind, the
- needs of, 359-61
- Agencies, 235
- accountability of, 389-95
 - and alternatives to the Blindness System, 66-71
 - barriers to normalization, 24-5
 - and the battered child, 241-50
 - and the blindness system, 133-5
 - counseling families of visually handicapped children, 251-7
 - and discrimination, 325-7
 - education coordination, 72-8
 - and endowment management, 404
 - political aspects of services, 168-74
 - salary and personnel practices report, 384
 - and tax law changes, 404-5
 - voluntary, new roles, responsibilities, and problems, 385-406
- Agency administration
- accountability (article), 477
 - "Adapting to VR's Future Shock" (article), 285
 - contributions and tax policy, 183
 - "Cryptography and Computer Privacy" (article), 330
 - "The Ethics of Supervision" (article), 330
 - evaluating social programs (book), 94
 - Foster Gransparents at Work Here* (article), 45
 - hospital medical records guideline, 183
 - "Legislative Activities of Charitable Organizations" (article), 330
 - "The Need for an Honest Look" (article), 285
 - and nonprofit marketing (research report), 381
 - special events handbook, 183
 - volunteer recruitment (book), 94
 - volunteer services manual, 477
- Agency referral guide, 191
- Aging, the
- attitudes toward, 406
 - attitudes toward (article), 381
 - and community care (article), 330, 331
 - geriatric nursing for (book), 431
 - integration, blind with sighted, 181
 - living, independent for (article), 477
 - mutual aid (report), 185
 - Nobody Ever Died of Old Age* (book), 45
 - and the nursing home (article), 330, 331
 - pamphlet, 187
 - personality change in (book), 185
 - programming, creative for (manual), 477
 - and relocation (article), 431
 - "Research Planning and Action for the Aged" (book), 285
 - social gerontology (conference papers), 185
 - and social work (book), 94
 - and transportation (book), 431
 - work and (conference papers), 185
- Aging blind, the
- attitudes toward, 406
 - and community senior programs (pamphlet), 331
 - and independence, 181-2
 - integration with sighted in senior citizen centers, 181
 - neighborhood program for, 141
 - in the nursing home, 126-30
 - pamphlet, 187
 - psychogenic needs of, meeting, 258-65, 271
 - readers for, 277
 - Rehabilitation Aide Project for, 48
 - and sensory stimulation, 126-30
- Aids and appliances
- catalog, 272
 - Cognidictor, 410
 - Kay Ultrasonic Glasses, 407-8
 - Laser Cane, 408
 - Optacon, 410
 - Pathsounder, 407-8
 - Seeing Aid, 409
- Aids, technical, resource agency, 423
- Alabama State Department of Vocational Rehabilitation, 12
- Alert, Inc., 96
- Alfred Allen Award, 336
- All-Russia Society for the Blind
- conference on blind computer programmers, 266
- Ambrose Shotwell Award, 336
- American Association of Community and Junior Colleges Career Staffing Center, 335
- American Association of Fund-Raising Counsel, 397
- American Association of Workers for the Blind, 96, 131, 279, 288, 405
- Alfred Allen Award, 336
 - auditory map trial, 158
 - Humanitarian Award, 336
 - L. L. Watts Award, 144
 - Southeast Region, Regional Award, 48
- American Bar Association, family law, 335
- American Blind Bowling Association, 432
- American College Public Relations Association, 401
- American Council of the Blind, 89
- American Federation of Catholic Workers for the Blind, 191
- American Foundation for Overseas Blind, 141, 189, 288
- Helen Keller Award, 240
 - xerophthalmia eradication, 189
- American Foundation for the Blind, 21, 66, 83, 189, 216, 240, 252, 257, 272, 283, 288, 336, 373, 383, 480
- and ethical imperatives, 173
 - Midwest regional office address change, 335
 - National Task Force on Career Education, 198
 - sensory aids and development program for the partially sighted, 289-96
- American Hospital Association, 191
- American Institutes for Research, 239
- American Journal of Ophthalmology*, 287
- American Library Association
- Exceptional Service Award (Association of Hospital and Institution Libraries), 480
 - Francis Joseph Campbell Citation, 480
- American Medical Association Hektoen Silver Medal, 144
- American Optometric Association and color vision problems, 287
- American Printing House for the Blind, 235, 344, 383, 432
- cassette recorder, modified, 239
- American Public Welfare Association, 288
- American Telephone and Telegraph Company report (braille), 240
- Anxiety reduction and modeling, 434
- Applied Electronic Laboratory (MIT), 191
- Architecture
- trends affecting for service, 21-5
- Arizona Division of Rehabilitation for the Visually Impaired, 191
- Arkansas Enterprises for the Blind, 384
- Arkansas School for the Blind, 383
- Arkansas School for the Deaf, 89
- Armitage, R. T., 339
- Armour, Richard, 287
- Art and the handicapped child, 45
- Art exhibit, 479
- Asarkof, John, Philip Davis, and Carter B. Tallman
- "A Closed-Circuit Television System as a Reading Aid for Visually Handicapped Persons," 97-101
- Association for Computing Machinery (ACM), 267
- Association for the Aid of Crippled Children (name change), 141
- Attitudes, 235, 315-8, 369-70, 473-5
- in Australia, 66-71
 - toward the blind teacher, 80-1
 - But Not On Our Block* (book), 231
 - children's (article), 185

toward charity, 405
 of individuals beginning work with the
 blind, 1-5
 rehabilitation, 229-31
A Right to Love (report), 45
 the role of, 353
 taped commentaries on, 480
 Audio directory system, 432
 Audio-Reader, Kansas, 281-2
 Audio Response Time Sharing System, 191
 Audiovisual aids directory, 185
 Awards, 48, 131, 141, 144, 191, 240, 336,
 384, 432, 479, 480 (See also name of
 award.)
 Azrin, Nathan, 362

Bach-y-Rita, Paul, 144
 Bacon, Samuel, 373
 Baker, Larry Dale
 "Blindness and Social Behavior: A Need
 for Research," 315-8
 Balance and creative movement, 443
 Ballantine, Elmer, Jr., 336, 480
 Ballu, V., 339
 Bandura, Albert, 433
 Bangladesh
 blindness in, 31
 National Society for the Blind, 31
 Bannister, Olive, 335
 Baring, Walter S., 319
 Barnett, M. Robert, 257, 405
 Barry, M. Adelaide
 "How to Play With Your Partially Sight-
 ed Pre-school Child: Suggestions for
 Early Sensory and Educational Activ-
 ities," 457-69
 Bartimeus School, Holland, 113
 Battelle Memorial Institute, 410
 Battered child, the (book), 95
 with visual impairment, 241-50
 Bell, Alexander Graham (biography), 331
 Bell, Benjamin, 240
 Bell Telephone Laboratories, 413
 Benjamin, J. Malvern, Jr., 408
 Bentzen, Billie Louise
 "Independent Travel as a Way of Life
 for Multiply Handicapped Young Ad-
 ults," 377-9
 "Transfer of Learning from School Set-
 ting to Life Style in a Habilitation
 Program for Multiply Handicapped
 Blind Persons," 297-300
 Best, John, 205
 Beyda, Vivian, 288
 Binaural Sensory Aid for the Blind (Sonic
 Glasses)
 evaluation of, 7-11
 Bionic Instruments, Inc., 408
 Birkins, Charline J., 288
 Birth defects, 323
 detection of (article), 187
 Bischoff, Robert W., 48
 Blasch, Bruce B., 288
 Blasch, Bruce B., Richard L. Welsh, and
 Terry Davidson
 "Auditory Maps: An Orientation Aid
 for Visually Handicapped Persons,"
 145-58
 Bleecker, Richard W., 191
 Blind, the
 (See aging, adventitious, child, congeni-

tally, multihandicapped, retarded, and
 deaf-blind.)
 in America in 1893, 339
 art exhibit for, 479
 attitudes, mutual, 315-8
 in Australia, 66-71
 in computer occupations, 266-71
 and discrimination, 325-7
 and elevators, 85, 87
 federal income tax exemption, 84
 gardener, 427-9
 history of organized work for, 301-3
 integration into the community, 66-71
 needs of, 352-62
 radio stations and programs for, 281-3,
 335
 self-concepts of, 315-8
 sensory aids for, 407-14
 street crossing right of way for, 335
 teacher and job market, 80-3
 technical aids resource agency, 423
 traveller (pamphlet), 431
 welfare services for in Japan, 175-80
 workers' beginning response to, 1-5
 Blinded Veterans Association (BVA), 240,
 287, 288
 field service program, 143
 Blindism, 120
 Blindness
 in Bangladesh, 31
 common causes, four, 288
 and consciousness raising, 276-7
 in the Dahlak Islands, 11
 definitions of, 277
 legal, its meaning, 19-20
 levels of, 353-4
 pamphlet, 331
 prevention study group, 189
 racial vulnerability to, 384
 reactions to, 272-5
 and social research, 315-8
 statistics on, 384
 and stereotyping, 66-71
 teaching school children about, 216
 and the ultraviolet theory, 11
 Blindness system, the, 289
 in Australia, alternatives to, 66-71
 Bliss, James C., 410, 414
 Blodi, Frederick C., 144
 Body awareness, 90-2
 Boninger, Walter B.
 "The Small Planning Committee: A Tool
 for Meeting Human Needs," 258-65
 Bookkeeping, braille, 37-8, 39
 Books, beginner, 463
 Boston University Hospital-Massachusetts
 Association for the Blind Vision Re-
 habilitation, 97
 Boston University School of Medicine, 288
 Bowlby, John, 36
 Braille
 adoption of, 138-9
 American Telephone and Telegraph re-
 port in, 240
 anthology, 141
 bookkeeping, 37-8, 39
 calendar, 48
 literary competition, 335
 vs. New York point, 340
 poetry contest for blind children, 287
 "response button" tests, 158-60

Social Security publications, 479
 teaching, argument for, 375-7
 teaching to slow students, 38-9, 233,
 235
 transcribing and typing service, 143
 Braille Institute of America, 141
 Braille, Louis, 143, 407
Braille Mainichi, 176
 Brakeley, George, 403, 404
 Bray, Robert S., 83, 336, (award) 480
 Brindley, G. S., 411-12
 British and Foreign Blind Association, 339
 British Guide Dog Association, 143
 Brookshire, Voris, 144
 Bruce McKenzie Award, 131
Bulletin of Prosthetics Research (tape), 239
 Bureau of Education for the Handicapped,
 72, 73
 Burleson, Georgia
 "Modeling: An Effective Behavior
 Change Technique for Teaching Blind
 Persons," 433-42, 469
 Butler, David M. and Gene H. Russell
 "The Five-County Vocational Skills
 Training Program, 1970-1972," 301-8

Calendar, Aesop's Fables, braille, 48
 California
 state civil service modification for the
 blind, 432
 vocational skills training program, 301-
 8
 work-experience program in, 221-5
 California Association of Orientation and
 Mobility Specialists, 279
 California League for the Handicapped,
 443
 California State Department of Rehabilita-
 tion, 191
 "Call for Action," 191
 Campbell, Lawrence F. and Judith T.
 Tremble
 "A Diversified Cooperative Work-Exper-
 ience Program for Blind and Multiply
 Handicapped Blind Students," 216-9
 Camps for blind children, 96
 Canadian National Institute for the Blind,
 189, 191
 Cane
 colored, 189
 and modeling, 437
 street crossing right of way, 335
 and travel technique, 279
 Canfield, Brad, 282
 Capozzoli, Donato, 336
 Carbery, Michael, 288
 Cardwell, Harold D., Sr.
 "Some Hints on Enjoyable Gardening,"
 427-9
 Career education
 in Alleghany County Schools (Pennsyl-
 vania), 207
 community involvement in, 415-23
 concepts of, 200-1
 and daily living skills, 223
 elementary school curriculum (article),
 381
 and federal funding, 208
 goals for, 195
 implications of, 207-9, 215
 issue, 193-226

- issues surrounding, 200-6
and job redesign techniques, 214
materials for the physically handicapped, 432
models, 193-9, 195-6
national conference on, summary of, 199
national task force on, 198
in Peoria (Illinois) public schools, 206
in Santa Cruz County (California), 209
and self-reliance training, 221-5
and student internships, 218
in Texas, 202-6
- Career staffing center, 335
- Careers
(see also occupations.)
in broadcasting, 335
- Carnegie Corporation of New York, 405
- Carolan, Robert H.,
"Sensory Stimulation and the Blind Infant," 119-26
"Sensory Stimulation in the Nursing Home," 126-30
- Cassette
recorder, modified, 239
supplies, discount, 335
- Cassette tapes
auditory maps on, 145-58
Eskimo language, 189
on physical disability, 480
- Castogna, Angelo (award), 384
- Cataract research (booklet), 381
- Cataracts, service connected, 286
- CCTV (See closed-circuit television.)
- Center for Independent Living, Inc., 480
- Center for Vocational and Technical Education, Ohio State University, 196
- Charlotte (N.C.) Workshop for the Blind, 144
- Child abuse, 241-50
reporting and follow-up program, 480
- Child, blind, the
and abuse, 243
and creative movement classes, 90-2, 442-7
early development of, 253
game system for, 96
longitudinal studies of, 309-14
and motor development, 309-14
- Child, gifted
program for, 45
- Child, handicapped, the
Art and the Handicapped Child (book), 45
game system for, 96
- Child Protective Services Act, 1973, 480
- Child, visually impaired
and abuse, 241-50
and counseling, 251-7
resource room for, 363-8
- Childhood, early development, 34-7
- Children, preschool
concept development (book), 46
"Day Care and Early Education" (publication), 331
program for, 331
- Children's Hospital, Washington, D. C., 249
- Christiansen, Edward Walton, 48
- Clark, Franklin S., 279
- Clark, Leslie L.
"Definitions of Blindness: A Need for the Raising of Consciousness," 277
- Clayton, Isaac P.
"Career Opportunities for Visually Handicapped Persons in Maryland," 210-5
- Cleveland Society for the Blind, 336
auditory map, 158
- Closed-circuit television (CCTV)
bibliography, 137
critique of, 346-51
large-screen, 423
manufacturers, list of, 137, 335
markets for, 295
as reading aid, 97-101
selection criteria, 102-10
- Clubs
ideas for (pamphlet), 187
social for blind adults, 259-65, 271
- Cobb, Jessamine, 335
- Cognodictor, 410
- Cole, Samuel J.
"Confidentiality Policies and Practices in Residential Schools for the Blind," 52-5
- Collins, Carter C., 411
- Color deficiency, 287
- Colorado State Department of Social Services, Division of Rehabilitation Services for the Blind, 288
- Commission on Accreditation of Rehabilitation Facilities, 71
- Committee on Disabled Veterans, 141
- Communication
need for, 354
skills, oral-aural, teaching of, 448-53
- Community Services for the Visually Handicapped, State of Illinois, 131
- Compressed speech, 96
- Computer Services for the Blind, 191
- Computer training, curriculum standards for, 266-71
- Computers and social work (pamphlet), 46
- Concept development, preschool children, 46
- "Confidentiality and the School," 49-65
"Classification and Maintenance of Data," 60-1
"Introduction," 49, 51
letter to the editor, 237
and Social Service Exchange, 237
"Summary of Workshop Reports," 62-5
"Workshop Report," 59, 61
- Congenitally blind, the needs of, 356-8
- Connecticut College American Dance Festival, 90-2
- Connecticut RLF lawsuit, 79
- Connecticut, work-experience program in, 216-9
- Connor, Gordon B. and John F. Muldoon
"A Statement of the Needs of Blind and Visually Impaired Individuals," 352-62
- Consumerism
and bureaucracy (article), 185
education, community (survey), 185
legal rights of the handicapped (book), 477
"A Role for Social Workers in the Consumer Movement," 285 (article)
- Cookbook, large-print, 432
- Corbett, Michael C. and Benjamin C. Johnston
"Orientation and Mobility Instruction for Blind Individuals Functioning on a Retarded Level," 27-31
- Corneal disease (fact sheet), 381
- Correspondence courses, 287, 480
- Council for Exceptional Children (CEC)
information center, 383
international convention of, 167
- Council for the Retarded of St. Joseph County (Indiana), 335
- Council of State Administrators of Vocational Rehabilitation, 71
- Counseling
for employment, 111-5
genetic (pamphlet), 187
in hereditary eye disorders, 187
- Counselor, school
and confidentiality, 56-9
- Cozier, J. Kenneth (award), 336
- Crane, Hewitt D., 335
- Crawford, Frances, 131
- Creative movement
classes, 442-7
and dance, 90-2
- Crider, Robert, 191
- Criss Cole Rehabilitation Center for the Blind, 203
- Crowley, John S., 272
- Crown International, 96
- Current Literature, 43-5, 93-4, 139-41, 182-7, 238-9, 284-6, 328-33, 379-81, 429-31, 475-9
- Cylke, Frank Kurt, 336
- Dahlak Islands, blindness in, 11
- d'Albe, Fournier, 410
- Dance and creative movement, 90-2
- Davidson, Terry
"Braille Tests With Tactual 'Response Buttons' Allow for Unaided Test-Taking," 158-68
- Davidson, Terry, Bruce B. Blasch and Richard L. Welsh
"Auditory Maps: An Orientation Aid for Visually Handicapped Persons," 145-58
- Davis, Carl J. "Confidentiality and the School Counselor," 56-9, 288
- Davis, Finis E., 383
- Davis, Philip, John Asarkof, and Carter B. Tallman
"A Closed-Circuit Television as a Reading Aid for Visually Handicapped Persons," 97-101
- Davison, Owen R.
"The Accountability of Nonprofit Institutions in a Free Society," 389-95
- Dawber, Thomas R., 288
- Deaf, Denmark's services for the, 73
- Deaf-blind, the, in 1873, 343
- Deaf child, the
in-print material on, 95
regional centers for, 72
- Deafness Research and Training Center, 335
- Dean, Russell J. N., 229
- Denmark's Services for Deaf Persons, 73
- Deppe, Donald A., 240
- Development, early childhood, and sensory stimulation, 119-26
- Diabetes (article), 187
- Diabetic retinopathy
fact sheet, 381
racial vulnerability to, 384
ten-year study of, 25-6
- Dickerson, Larry R., 191
- Disability Benefits for Blind People*, 479
- Discrimination, 325-7
legislation, 239
- Division for the Blind and Physically

- Handicapped, Library of Congress, 141
Bulletin of Prosthetics Research (tape), 239
 Division for the Visually Handicapped (DVH), 167
 Dog guide
 association meeting, 143
 "Neurosis in Dogs" (article), 331
 pet cemetery, 143
 Dover, Frances, 67
 Duncan, Robert F., 401
 Dwight, James S., Jr., 288
- The Eastern Blind Rehabilitation Center, 116
 Easter Seal Society of New York, 45
 Education
 (See also career education.)
 "Amateur Radio Theory," correspondence course, 287
 Art and the Handicapped Child (book), 45
 of the blind, history of, 337-45
 "College and You," correspondence course, 287
 Curriculum standards for computer training, 266-71
 Gifted and Talented Children: Practical Programming for Teachers and Principals (book), 45
 in Idaho, 143
 in the integrated resource room, 363-8
 in Japan, 179
 job training for handicapped (article), 185
 "Key Issues Concerning the Adoption of the Metric System and Implications for the Education of Exceptional Children" (paper), 45-6
 of the mentally retarded, 383
 "The New Goal in Education: Schooling for Real Life" (article), 286
 periodicals, 187
 preschool in 1873, 340
 preschool (article), 187
 research and the classroom (article), 333
 sex, 185, 431
 special, 187, 331
 teaching guide on vision, 89
 Teaching Listening in the Elementary School (book), 187
 of visually handicapped child (review), 425
 vocational, attitudes toward, 193-9
 vocational skills training program, 301-8
- Education Development Center, 195
 Elliott, Emerson J., 48
 El Salvador, xerophthalmia eradication program, 189
 Employment
 discrimination, 325-7
 in federal service (pamphlet), 187
 finding and preparing for, 111-5
 of handicapped (booklets), 187
 as testers in food and fragrance industries, 276-7
 Environment, design of and trends for service, 21-5
 Epstein, Bernard, 480
 Equal Employment Opportunity Act, 325
 "ERIC ExCerpt," 383
- Eskimo language tape cassettes, 189
Estimating Your Social Security Retirement Check, 479
 Ethics and delivery of social and health services, 168-74
Evangelical Message, 384
Exceptional Children, 383
The Exceptional Parent, reprints, 384
 Exemption, Federal Income Tax, 84
 Exercise, with running cable, 454-6
Expectations, 141
 poetry contest, 287
 Exploring Optophone, 410
 Eye
 diseases, 288
 test, home, 463-4
 Eyeglasses, automatic fitting of, 335
- Facilities for the Learning Disabled and Handicapped, Directory, 89
 Family counseling, 251-7
 Family Law Section, American Bar Association, 335
 Far West Laboratory, 195
 Federal
 funds, cutback in, 397
 responsibility, 386, 392-3
 Feinberg, Jay, 336
 Fight for Sight, Inc. (awards), 240
 Filep, Robert T., 96
 Film, *Points of Departure* (rehabilitation), 187
 Flemming, Arthur S., 336
 Flynn, Donald W. (Obit.), 189
 Foulke, Emerson, 452
 Foundation for Child Development, 141
 Fraiberg, Selma, 35
 Francis Joseph Campbell Citation and Medal, American Library Association, 144
 Frankl, Ludwig August, 337
 Franklin, Benjamin, 411
 Frantzreb, Arthur, 403
 Freeland, George, 335
 French National Association for the Welfare of the Blind, 143
 Freitag, William, 389
 Freund, Elizabeth D.
 "Blind Testers in the Food and Fragrance Industry," 276-7
 Friedman, Gerald R.
 "The Closed-Circuit Television Reading System: Fact or Fiasco?" 346-51
 Friend, Richard R., 302
 Friendly, David S., 249
 Froyd, Helen E.
 "Counseling Families of Severely Visually Handicapped Children," 251-7
- Funding, 387
 direct mail, 403
 The New Depression in Higher Education (book), 401
 and professionals, 401-3
 professional education for, 404
 for sensory aids development, 414
 standards for, 395
 trends, 396-406
 and volunteers, 400-1
Future Shock, 68
- Gallozzi, Charles, 83
 Game system, 96
 Gardening, 427-9
- Garner, Don E., Sr., 288
 Gasset, Antonio, 47
 Genessee Federation of the Blind, 283
 Gillman, Arthur E.
 "Handicap and Cognition: Visual Deprivation and the Rate of Motor Development in Infants," 309-14
Giving U.S.A., 397
 Glaucoma
 fact sheet, 381
 racial vulnerability to, 384
 Glennan, Thomas K., Jr., 144
 Golden, Arlene R., 38
 Goldish, Louis H., 257
 Goldish, Louis H. and Michael H. Marx
 "The Visually Impaired as a Market for Sensory Aids and Services: Part Two—Aids and Services for Partially Sighted Persons," 289-96
 Goldstein, Louis L., 211
 Goodgold, Joseph, 191
 Go-Sees booklet, 279
 Grants
 Alleghany County Schools (Pennsylvania), 207
 for Human Genetics Center, 432
 Lucy Wortham James Memorial, 141
 Maryland School for the Blind, 211
 for Optacon evaluation, 239
 Peoria Public Schools (Illinois), 206
 Research to Prevent Blindness, Louis B. Mayer Scholar, 383
 Greater Pittsburgh Guild for the Blind, 39
 Griffin, Ruth M., 191
 Guldager, Lars
 "A Macro-Solution in Special Education," 72-9
- Habilitation from school setting to life style, 297-300
 Hadley School for the Blind, 287, 288, 432, 451
 correspondence courses, 480
 Hall, Fletcher R., 336
 Hall, Frank, 373
 Hallenbeck, Charles E.
 "Curriculum Standards in the United States for Training Blind Persons in Computer Occupations," 266-71
 Hallinan, Arthur J.
 "Braille Bookkeeping," 37-8
 Handel, Alexander F., 239
 Handicap and cognition in infant motor development, 309-14
 Handicapped, the
 and career education, 421-3
 constitutional rights of, 335
 sexual and emotional needs (report), 45
 sightseeing and activity guide of New York, 45
 Haptic Intelligence Scale for Adult Blind, 118
 Harlow, Harry, 36
 Hartenstine, Dennis L., 336
 Hartford Atheneum Tactile Gallery, 335
 Hathaway, Donald W., 432
 Hatlen, Philip, 167
 Häüy, Valentin, 337
 Head, Lord, 66
 HEW, 48, 72, 144, 205, 288, 336, 399, 405
 appointments, 96, 191
 braille publications, 479

constitutional rights of the handicapped (grant), 335
 Hektoen Silver Medal, American Medical Association, 144
 Helen Keller International Award for Outstanding Service to Blind Persons, 240
 Helms, Arthur, 240
 Hershowitz, Irvin (award), 336
 Hicks, Muriel Whipple, 432
 "Hindsight," 32-4, 85-7, 132-3, 227-9, 272-5, 319-21, 369-70
 Hingson, Michael B. (award), 336
 History of education of the blind, 337-45
 Holland, preparing for employment in, 111-5
 Home mechanics course, 432
 Hood, Clare M., 287
 Hooper, Marjorie S. (award), 336, 480
 Hospital setting, Seeing Eye dog in, 191
 Housing
 needs of physically handicapped children (monograph), 333
 programs (reports), 94
 "Rent Watch" (pamphlet), 331
 Houston Lighthouse for the Blind, 191, 384
 Howe Press, 48
 Howe, S. G., 338
 Howle, William, 240
 Huber, Dennis J.
 "Learn to Earn: A School Work-Experience Program," 219-21
 Hughes, William J., 144
 Hunt, Loetta Lovejoy (Obit.), 47

 Idaho State School for the Blind, 143
 Identification card programs, list of states, 41-3
If You Become Disabled, 479
 Ilg, Frances, 336
 Illinois Braille and Sight Saving School, history, 371-5
 Illinois Institute of Technology, 118
 Illinois Talking Book, Closed Circuit Radio, 282-3
 Illinois Visually Handicapped Institute, 237
 Infant
 motor development and visual handicap, 309-14
 visually impaired, and stimulation, 457-69
 Infant, the blind
 and sensory stimulation, 119-26
 and toilet training, 122
 Imperial and Royal Institute for the Education of the Blind, Vienna, 338
 Imperial Institute for Blind Children, Brazil, 339
 Indiana, Council for the Retarded of St. Joseph County, 335
 Indiana Society for the Prevention of Blindness, 144
 Indian National Association for the Blind, 31
 Indonesia, xerophthalmia eradication program, 189
 Industrial Home for the Blind, 12
 switchboard operator training, 143
 Information collection, need for, 354
 Ingham, Kenneth, 191
 Institute for the Blind, St. Louis, 338
 Institute for the Education of the Blind, Paris, 339
 Institute of Rehabilitation Medicine, 232

Institution for the Blind, Boston, 338, 344
 Institution for the Blind, Cairo, Egypt, 338
 Institution for the Blind, Leipzig, 339
 Integration in the community, 66-71
International Catalog of Aids and Appliances, 272
 International Conference of Educators of Blind Youth, 345
 International Conference of Workers for the Blind, 345
 International Council for the Education of Blind Youth, name change, 141
 International Council for the Education of the Visually Handicapped, 141
 International Council of Ophthalmology, 287
 International Literary Braille Competition, 432
 Iowa Braille and Sight Saving School, mobility curriculum, 161-7
 Israel, Larry
 "CCTV Reading Machines for Visually Handicapped Persons," 102-10

 Japan
 braille newspaper in, 176
 welfare services for the blind, 175-80
 Japan Braille Library, 175
 Jenkins, W. C., 283
 Jennison, Keith W., 144
 Jewish Braille Institute of America, 432
 Literary Braille Competition, 335
Jewish Braille Review, 432
 Jewish Guild for the Blind, 67
 Jobs
 market surveys, 111-2
 opportunity survey, 211-3
 placement, experiment in, 362
 redesign techniques, 214
 Training for 1,000,000-Plus Jobs (pamphlet), 46
 Jogging, 327-8
 and the blind veteran, 116-8
 Johnson, Suzanne
 "Teaching Braille to Slow Students," 38-9
 Johnston, Benjamin C. and Michael C. Corbett
 "Orientation and Mobility Instruction for Blind Individuals Functioning on a Retarded Level," 27-31
 Jones, R. J., 362
 Jose, Randall T., and Donald Springer
 "Optical Aids: An Interdisciplinary Prescription," 12-8
 Justice, Judith
 "Integrating Blind With Sighted in Senior Citizen Centers," 181

 Kalaglan, Betty, 141
 Kansas Audio-Reader, 281-2
 Kansas Braille Association, 233
Kansas Braille Reading-Readiness Book (book), 235
 Kansas Rehabilitation Center for the Blind, 233
 Kansas University, 282
 Kaplan, Ira, 257
 Katz, Jeanne, 432
 Kay, Leslie
 "The Sonic Glasses Evaluated," 7-11, 237
 Kay Ultrasonic Glasses, 407-8
 Keeney, Arthur H. (award), 480
Keeping Healthy After 60 (report), 45
 Kenmore, Jeanne R., 141

Kenmore, Jeanne R.
 "Helping Blind Persons to Find and Prepare for Employment," 111-15
 Kennedy, John F., 319
 Kentucky, 191
 Kentucky School for the Blind, 189
 Keratoconus, treatment of, 47
 Kessler, Henry H., 230
 Kinney, Richard, 288
 Klein, Johann Wilhelm, 302
 Klein, William S., 144
 Klinkhamer, George E.
 "The Implications of Career Education for Visually Handicapped Students," 207-9
 Klocke-Martin Award, 191
 Knachel, Robert, 131
 Kochlin, Alphons, 339
 Kohut, Anthony, 96
 Konigswarter, Jonas, 337
 Krafft, John Monroe (award), 336
 Krannert Art Museum of the University of Illinois, 479
 Kratz, John A., 230
 Krebs, Bernard M.
 "Status Quo: A Synonym for Compromise," 138-9
 Krusen, Frank H., 230
 Kruus, Alar, 144
 Kuffler, Stephen W., 144
 Kumpe, Roy (award), 384

 Labor, Josef, 343
 Langworthy, Jessica, 373
 Lanser, Edward R., 384
 Large print books
 for children, catalog, 285
 exchange project, 479
 markets for, 294
 Large print teaching aids, 143
 Laser cane, 408
 Laurence, Marilyn
 "The Self-Reliance Institute: Filling the Gap in Work Experience," 221-5
 Lavanchy, Henri, 338
 Lawsuit, RLF, 79
 Leadership, 89
 League for the Handicapped, San Francisco, 91
 Learning Center for the Visually Handicapped, 297, 377
 Learning disabilities, 89
 Leavitt, Glenn
 "Teaching Oral-Aural Communication Skills in a Rehabilitation Center for the Blind," 448-53
 Legal blindness, its meaning, 19-20
 Legislation, 287
 Baring Bill, 319-21
 and the Blindness System, 67
 Child Protective Services Act, 480
 and confidentiality, 55, 57
 constitutional rights of handicapped, 335
 Equal Employment Opportunity Act, 325-7
 government program spending (article), 187
 Model State Use Law, 383-4
 Public Law 92-318, 239
 social, 170
 special education, 72
 street crossing right of way, 335
 tax law changes, 404-5
 for training and work, 301-3

Vocational Education Act, 193, 198
 Leibowitz, Howard M., 288
 Leslie, John W., 401
 Lessne, Robert L.
 "A Declaration of Independence for Geriatric Blind Persons," 181-2
 Lewis, Harold
 "Action on Issues," 168-74
 LFB Artists Bureau, 47
 Library of Congress, Division for the Blind and Physically Handicapped, 83, 144, 277, 336
 Catalog, 1972, 285
 Lions Club, 281, 283
 Lions International, "Tapes for the Blind," 335
 Lipman, Miriam H.
 "To Braille or Not to Braille . . .?" 375-7
 Liska, James A.
 "What Does It Mean to be 'Legally Blind,'" 19-20, 277
 Listening skills, teaching of, 448-53
 Lister, Charles
 "Confidentiality and the Law," 50-2
 Little, Thomas H., 338
 Living skills
 in career education, 223
 in computer programmer training, 268
 from school setting to life style, 297-300
 Loetta Lovejoy Hunt Scholarship Fund, 47
The Lonely Crowd, 68
 Los Angeles Unified School District, 196
 Louis Braille Award, 336
 Louis Braille Foundation for Blind Musicians, 47, 288
 Lowenfeld, Berthold
 "100 Years Ago: The Vienna Congress of Teachers of the Blind," 337-45
 Low vision
 and agencies, 322-3
 aids, 289-96
 aids, cost of, 90
 aids, training and follow-up, 12-8
 clinics, 290-3
 and rehabilitation, 322-3
 Lubin, Virginia, 144
 Lucy Wortham James Memorial, 141
 Luisa Gross Horwitz Prize, 144

 McCracken, Ralph E., 432
 Macdonald, Mrs. Ranald H., 383
 McEwen, Barry A., 336
 McFaden, George, 48
 McGarry, Barbara D., 480
 McGreal, Thomas J. and Dennis Wiseman
 "The Blind Teacher in the Educational Job Market, 80-3
 Machine operation, electronic, 345
 McIver, Robert, 400
 McKay, Evelyn C. (Obit.), 288
 McKerson, Effie M., 191
 MacLeish, Archibald, 240
 McManus, Edward, 480
 McCreedy, Evelyn, 144
 Macular degeneration (fact sheet), 381
 Magill, Arthur N., 191
 Magnifier, optical, 423
 Maguire, Lydia, 144
 Maps, auditory, 145-58
 March of Dimes, 404
 Marland, Sidney P., 96, 415
 Marshall, Jon Scott (award), 336
 Mary E. Switzer Memorial Building, 189
 Maryland
 career education in, 210-5

resource room program, 363-8
 Maryland Department of Employment Security, 210
 Maryland School for the Blind, 210, 363
 Maryland State Department of Education, Division of Vocational-Technical Education, 211
 Marx, Michael H. and Louis H. Goldish
 "The Visually Impaired as a Market for Sensory Aids and Services: Part Two—Aids and Services for Partially Sighted Persons," 289-96
 Massachusetts College of Optometry, 336
 Massachusetts Commission for the Blind CCTV, 97-101, 297
 Massachusetts Department of Special Education, 297
 Massachusetts Institute of Technology, Sensory Aids and Development Center, 407
 Matheny, Rebecca Jean (award), 336
 Mauch Laboratories, 410
 Mechanics course, home, 432
 Mecklenburg Association for the Blind, 181
 Medical sciences
 "Biomedical Technology and the Detection of Birth Defects" (article), 187
 "The Control of Sensitivity in the Retina" (article), 286
 "Counseling in Hereditary Eye Disorders," 187
 "Microwaves—A Public Menace?" (article), 286
 Medicare
 handbook, 479
 and mobility instruction, 182
 Member of the Most Excellent Order of the British Empire (MBE), 48
 Mendicancy (pamphlet), 187
Mentor, 373
 Metric system and implications for education of special children (paper), 45
 Metzman, Daniel F., 48
 Micay, Nathan
 "Notes on Jogging," 327-8
 Michigan Rehabilitation Center for the Blind, 448
 Michigan School for the Blind, 48, 432
 Michigan, special radio program for the visually impaired, 283
 Mid-American Conference of Rehabilitation Teachers, 131
 Migel Medal, 83, 383, 425
 Milbank, Jeremiah, 230
 Miller, Deacon, 144
 Miller, Marilyn, 191
 Mims, Forrest M.
 "Sensory Aids for Blind Persons," 407-14
 Minkoff, Harry, 237
 Minnesota State Services for the Blind, 281
 Minnesota, talking book radio in, 281
 Mississippi, Vocational Rehabilitation for the Blind, accreditation of, 479
 Missouri Talking Book Closed-Circuit Radio, 282-3
 Mitchell, Christina, 191
 Mobility
 curriculum for multiply handicapped young adults, 377-9
 instruction curriculum, 161-7
 instruction and Medicare, 182
 need for, 354
 skills and auditory maps, 147

Sonic Glasses evaluated, 7-11, 237, 407-8
 training for retarded blind, 27-31
 training in non-institutional setting, 69-70
 and vision rehabilitation, 17
 Mobility and orientation curriculum guide, 48
 Modeling, a teaching technique, 433-42, 469
 Monroe, Jerry R., 287
 Morgan, Clayton A., 229-33
 Mother
 and blind child relationship, 37
 and sensory stimulation of infant, 121
 Motor development, infant, and visual handicap, 309-14
 Motor skills, improvement of, 443
 Muldoon, John F. and Gordon B. Connor
 "A Statement of the Needs of Blind and Visually Impaired Individuals," 352-62
 Mulholland, Mary Ellen
 "Confidentiality and the School, Introduction," 49, 51
 Multihandicapped blind, the, habilitation program for, 297-300
 Multihandicapped blind child population, 252
 Multihandicapped blind student, the, co-operative work-experience for, 216-9
 Munkres, Alberta
 "Strength in Union," 277
 Murdoch, Susan, 144
 Murphy, Thomas J., 237
 Music instruction in 1873, 342
 Musicians, blind, 47

 NAC (See National Accreditation Council for Agencies Serving the Blind and Visually Handicapped)
 Naler, John L., 96
 National Accreditation Council for Agencies Serving the Blind and Visually Handicapped, 71, 204, 239, 319, 389, 393-4, 399, 404, 432
 accreditations, 189, 479
 appointments, 96, 191
 assessment of impact of accreditation, 7
 award, 336
 and confidentiality, 51
 National Advisory Council on Vocational Education, 193
 National Advisory Council to the Braille Authority, 139
 National Association for Retarded Children, 335
 National Braille Association, 480
 National Braille Press, 383
 National Camps for Blind Children, 96
 National Center for Law and the Handicapped, 335
 National Deaf-Blind Helpers League, new address, 288
 National Eye Institute, 240, 288, 336, 384, 480
 diabetic retinopathy study, 25-6
 pamphlets on visual conditions, 381
 Special Visual Sciences Research Award Program, 432
 National Federation of the Blind, 319
 National Federation of the Blind in the United Kingdom, Louis Braille Award, 336
 National Foundation, 404
 National Industries for the Blind, 383, 384

National Industries for the Blind, awards
 Blind Worker of the Year, 384
 Peter J. Salmon, 144
 R. B. Irwin, 144, 384
 National Institute of Child Health and Human Development, 36
 National Institute for Education, 144, 415
 National Institute for Rehabilitation Engineering, 423
 National Rehabilitation Association, 78
 Mary E. Switzer Memorial Fund, 335
 National Rehabilitation Counseling Association, 336
 National Rehabilitation Counselors Association, 78
 National Retinitis Pigmentosa Foundation, 336
 National Society for the Prevention of Blindness
 honorary member, 144
 National Society of Fund Raisers, 400
 National Task Force on Career Education, 198
 National Theater of the Deaf, 335
 National Welfare Services of Nigeria, 143
 Nee, Joseph F., 404
 Negrin, Sam, 288
 Neurological dysfunction, 89
 Nevil Gallery for the Blind and Sighted, 335
 New York Association for the Blind, 12, 216, 287, 288, 309, 336, 384, 432
 Lighthouse Award, 432
 the Lighthouse Players, 335
 psychological and testing service, 141
 referral card flyer, 46
 The New Outlook for the Blind
 changes in, 32, 41, 279, 373
 omissions in recorded edition, 84
 (See also *Offprint Series*.)
 Newspaper Guild Local 46 Headliner, 141
 New York Point, 340
 New York Institute for the Education of the Blind, 288
 New York sightseeing and activity guide, 45
 New York State Commission for the Visually Handicapped, 143
 New York State Department of Social Services, 480
 New York State Federation of Workers for the Blind, 168
 New York Telephone Company, 143
New York Times in Review discs, 383
 Nigeria, 143
 North Central Institute, 141
 Nursing home, sensory stimulation in, 126-30
 Nye, Patrick, 414
 Oak Hill School (Connecticut), 216
 O'Brien, A. Michael, 221
 O'Brien, Rosemary
 "The Integrated Resource Room for Visually Impaired Children, 363-8
 Occupations
 (See also jobs.)
 blind teacher job market, 80-3
 in broadcasting, 335
 curriculum standards for computer training, 266-71
 gardening, 429
 historical, 1873, 341-2

in Japan, 178
 job market survey, 111-5
 switchboard operator training, 143
 testers in food and fragrance industries, 276-7
 O'Connor, James, 144
Offprint Series
 "Optical Aids: An Interdisciplinary Prescription," 18
 "Response of Individuals Beginning Work With Blind Persons," 5
 Oklahoma, closed circuit radio plans, 283
 Oklahoma Department of Institutions, Social and Rehabilitation Services, 283
 Oklahoma Library for the Blind and Physically Handicapped, 283
 Oliver, Howard, 432
 Olsen, Carl, 383
Ophthalmology Manpower: Characteristics of Clinical Practice United States-1968, 381
 Optacon, 410
 evaluation, 239
 Optical aids, training and follow-up, 12-8
 Optometer, 335
 Optometrist and successful use of optical aids, 12-8
 Oral-aural communication skills, teaching, 448-53
 Oram, Harold L., 402
 Orange Grove Center for the Retarded, 27-31
 Organizations, ideas for (pamphlet), 187
 Orientation
 aid, 145-58
 and creative movement, 443
 processes and auditory maps, 147-8
 Orientation and mobility
 curriculum guide, 48
 instruction for retarded blind, 27-31
 in the resource program, 367
 Sonic Glasses evaluated, 7-11
 OSTI report, 405, 406
 Ottina, John R., 144
 Overbrook School for the Blind, Philadelphia, 239, 335
 computer-assisted instruction project, 47
 Pablasek, Mathias, 338, 340, 342, 423
 Parents
 and child abuse, 241-50
 counseling on visual handicap, 251-7
 and playing with partially sighted child, 457-69
 Parker, John L., 144
 Partially sighted, the
 (See also low vision.)
 definition of, 289
 population of, 290
 sensory aids and services for, 289-96
 Pathsounder, 407-8
 Paul J. Langan Physical Education Building, 189
 Pennsylvania Association for the Blind, 432
 Pennsylvania Association of Orientation and Mobility Specialists, 287
 Pennsylvania Federation of Business and Professional Women, "Woman of the Year," 432
 Pennsylvania work-experience program, 219-21
 Penrickton Center for Blind Children, 480

Philanthropy, 398-9
 Photocoagulation, 26
 Physical education, 224
 jogging, 116-8
 program, 442-7
 Physical expression, need for, 354
 Peoria (Illinois) Public Schools, 206
 Perception, extra-sensory, 239
 Perceptual Alternatives Laboratory, 191, 452
 Perkins School for the Blind, 297, 301
 Howe Press, 48
 Personal management (article), 331
 Peterson, Joseph W., 288
 Pettiss, Susan T., 189
 Pierce, William F., 240
 Pifer, Alan, 405
 Pittsburgh Branch, Pennsylvania Association for the Blind, 95, 219
 Placement service, 141
 Play
 equipment, 459-61
 with partially sighted preschool child, 457-69
 "Pony-Alert," 96
 Posture and creative movement, 443
 Preschool for the Blind, Hubertusburg, Saxony, 340
 Prescott, James, 36
 President's Committee on Employment of the Handicapped, 141, 239
 Privacy, right to, 49-65
 Prosthetics, electronic, conference proceedings, 381
 Protestant Guild for the Blind, 297, 377
 Psychological
 functioning, need for, 354
 testing service, 141
 Psychology
 the battered child (book), 95
 maturation (book), 95
 Pugh, Nance, 432
 Purkinje, Johannes, 411-2
 Purse, Ross C., 191
 Radio
 arts and the handicapped, 335
 programming and background information, 331
 publicity (pamphlets), 431
 stations and programs for the blind, 281-3, 335
 station WMCA "Call for Action," 191
 Rand, Marcia
 "Dance and Creative Movement for Blind Persons," 90-2
 Ray, William T., 191
 Reader, tactile, 345
 Reading
 basic for preschool child, 461-3
 machines, electronic, 410-1
 for preschool visually handicapped child, 461-4
 readiness (book), 235
 remedial, 233
 universal system of in 1873, 339
 Reading aid
 CCTV, bibliography on, 137
 CCTV, critique of, 346-51
 CCTV, manufacturers, list of, 137, 335
Reading Is for Everyone (pamphlet), 46
 Recording for the Blind, Inc., 383
 Anne Thompson Macdonald Award, 240

Scholastic Achievement Awards, 336
 Records, student, access to, 49-65
 Recreation
 for blind adults, 259-65, 271
 camping (proceedings), 333
 jogging, 116-8, 327-8
 national forest (article), 477
 with running cable, 454-6
 skating, 328
 therapeutic (article), 477
 Reesem, Algernon B., 479
 Refractive errors (fact sheet), 381
 Refsnaesskolen School (Denmark), 113
 Rehabilitation
 aide program, 48
 and bookkeeping training, 39
 counsellor and CCTV, 99-100
 and gardening, 427-9
 kinesics training, 39
 and modeling, 435-42
 New Life for Millions: Rehabilitation for America's Disabled (book), 229-31
 Points of Departure (film), 187
 and social services for the blind, 133-5
 state medical association committees directory, 185
 vision and optical aids, 12-8
 A World to Care For: An Autobiography (book), 231-3
 Rehabilitation Resources, Inc., 182
 Reimer, Norman, 335
 Reinhard, Gustav, 340
 Religion
 Evangelical Message, 384
 Xavier Society for the Blind catalog, 384
 Remedial Reading (book), 233
 Research
 archives (biannual journal), 331
 award program, 432
 "Brain Mechanisms in Sensory Substitution" (book), 286
 on electronic prosthetics (proceedings), 381
 grant, 383
 "The National Eye Institute" (article), 286
 in rehabilitation counseling (readings), 477
 Research for Better Schools, 195
 Research to Prevent Blindness, Inc., Trustees Award, 479
 Resnick, Rose
 "Creative Movement Classes for Visually Handicapped Children in a Public School Setting," 442-7
 Retarded children
 association for, 335
 preschool program for (book), 331
 Retina, pigmentary degeneration of, 100
 Retinal detachment (fact sheet), 381
 Retinitis pigmentosa (fact sheet), 381
 Retinoblastoma, treatment, 479
 Retrolental fibroplasia (RLF), lawsuit, 79
 Review
 But Not on Our Block, Henry Viscardi, Jr., reviewed by Clayton A. Morgan, 231
 Directory of Facilities for the Learning-Disabled and Handicapped, Careth Ellingson and James Cass, reviewed by Susan Jay Spungin, 89
 Elizabeth, Sharon Ulrich (with Anna W. M. Wold), reviewed by Pauline M. Moor, 34-5
 From Shelter to Self-Reliance—A His-

tory of the Illinois Braille and Sight Saving School, Walter B. Hendrickson, reviewed by Warren Bledsoe, 371-5
Is My Baby All Right? A Guide to Birth Defects, reviewed by Augustine Gentile, 323, 325
A Handicapped Child in the Family: A Guide for Parents, Verda Heisler, reviewed by Pauline M. Moor, 35-6
Low Vision: The Edge of Sight (film), reviewed by Irving R. Dickman, 322-3
New Life for Millions: Rehabilitation for America's Disabled, Russell J. N. Dean, reviewed by Clayton A. Morgan, 229-31
Oklahoma-Arkansas-Kansas Regional Leadership Seminar (ed.) Billie Elder, reviewed by Patricia Scherf Smith, 89
Rock-a-Bye Baby, (film) Time-Life Films, reviewed by Pauline M. Moor, 36-7
Social and Rehabilitation Services for the Blind, Richard E. Hardy and John G. Cull, reviewed by Herbert Rusalem, 133-5
Teaching About Vision, Joint Study Committee on Vision of the American School Health Association and National Society for the Prevention of Blindness, reviewed by Susan Jay Spungin, 89
The Visually Handicapped Child in School (ed.) Berthold Lowenfeld, reviewed by Rosemary O'Brien, 425
A World to Care For: An Autobiography, Howard A. Rusk, reviewed by Clayton A. Morgan, 231-3
 Richards, Thomas K., 144
 Richardson, James H., 288
 Riemer, Wilhelm, 340
 Riesman, D., 68
 Robert B. Irwin Award, 383
 Roberts, Alvin, 131
 Roberts, Harold, 66
 Robinson, Lee W., 96
 Robson, Howard
 "Some Aspects of Welfare Services for Blind Persons in Japan," 175-80
 Rodenberg, Lewis W., 373
 Rodger, F. C., 11
 Rodgers, Carl T.
 "How Many of Us Are Extraordinary?" 235
 Roger, Mae D., 287
 Rose, Joan B., 143
 Rougagnac, Jeri (award), 384
 Rouse, Roger D., 288
 Royal Commonwealth Society for the Blind, 31, 67
 Royal National Institute for the Blind, 66
 Royal New Zealand Foundation for the Blind, 48
 Royal State Institution for the Blind, Dresden, 340
 Rubella vaccination, 325
 Running cable, 454-6
 Rusk, Howard A., 230, 232
 Russell, Gene H. and David M. Butler
 "The Five-County Vocational Skills Training Program, 1970-1972," 301-8
 Russell, Lindsay, 407
 Russell Sage Foundation, 51
 Ryan, Stephen J., 383
 Ryan, Thomas C., 221

Sacramento Society for the Blind, 221
 St. Louis Society for the Blind, 282
 St. Marie, Ludwig von, 339
Salaries and Related Personnel Practices in Voluntary Social and Health Agencies in New York City, September, 1972 (report) 384
 Salmon, Peter J., 6, 191
 Sampson, Charles X., 398
 Sanford, Stephen, 141
 San Francisco Dance Theater, 91
 San Francisco Unified School District, 443
 Sapp, Peggy, 283
 Saunders, LeRoy F., 432
 Sausser, Doris P., 288
 Schloss, Irvin, 383
 Scholl, Geraldine T.
 "Confidentiality and the Schools: Summary of Workshop Reports," 62-5
 School, battered child alert, 241-50
 School work-experience program, 219-21
 Schools
 ideas for (pamphlet), 187
 residential and confidentiality, 49-65
 Schubert, James, 144
 Scott, Robert, 66, 405
 Sculpture exhibit for the blind, 287
 Seeing Aid, 409
 The Seeing Eye, 95, 144
Seeing Eye Dogs in a Hospital Setting (pamphlet), 191
Seeking the Competitive Dollar (book), 401
 Select Education Subcommittee, House Committee on Education and Labor, 479
 Self-concept and creative movement, 443
 Sensi-Quik, 279
 Sensory aids, 407-14
 (See also aids and appliances.)
 development, 257, 272, 289-96
 for the partially sighted, 289-96
 Sensory impairment and infant motor development, 309-14
 Service Center for Visually Impaired, Inc., Flint, Michigan, 283
 Services
 for the blind, responses of beginning workers, 1-5
 normalization as goal of, 21-5
 political aspects of delivery, 168-74
 referral card flyer, 46
 Sharma, P., 384
 Shotwell Memorial Award, 425
 Shurrager, Phil S., 118
 Simpkins, Kathy, 48
 Skating, 328
 Skrzypek, Alexander (award), 336
 Slicer, Alfred, 191
 Smith-Kettlewell Institute of Visual Science, 95-6, 411
 Smith, William L., 96
 Social and rehabilitation services for the blind, 133-5
 Social Security Administration, 386
 braille publications, 479
 Social work
 and bureaucratic skills (article), 477-8
 and computers (pamphlet), 46
 family life (book), 95
 and genetic counseling (article), 431
 and graduate education (report), 95
 group counseling (article), 333
 the interview (book), 95
 services to the handicapped, 386
 statistical survey (article), 47

and undergraduate education (report), 95
 Xerox Corporation project, 143
 Social worker
 battered child alert, 241-50
 in consumer movement (article), 285
 Sokoloff, H. David
 "Trends Affecting Designs for Service," 21-5
 Sonic Glasses
 evaluated, 7-11, 237
 Sorrells, Helen, 287
 Southern Illinois University, 432
 Southwest Research Institute of San Antonio, 409
 Spanish National Committee for the Blind, 189
 Speaking skills, teaching of, 453
 Speech Rate Translator, 96
 Spitz, Rene, 36
 Spivey, Buddy B., 288
 Sports
 jogging, 327-8
 skating, 328
 Springer, Donald, and Randall T. Jose
 "Optical Aids: An Interdisciplinary Prescription," 12-8
 Stabler, Paul R., 191
Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Organizations, 389, 393, 399
 Stanford Research Institute, 410
 Statistical surveys
 Administrators of Nursing and Personal Care Homes: Education and Training; United States, June-August 1969 (booklet), 431
 Administrators of Nursing and Personal Care Homes: Work Experience; United States, June-August 1969 (booklet), 381
 Characteristics of Residents in Nursing and Personal Care Homes: United States, June-August 1969 (booklet), 479
 employees in nursing homes, 333
 Statistics on Blindness in the Model Reporting Area, 1969-1970, 384
 Stephens, Roberta
 "Running Free: The Use of a 'Running Cable' With Blind Adolescents Who Function on a Retarded Level," 454-6
 Stereotypes
 and the blind teacher, 80-1
 changing, 66-71
 Stimulation
 in early childhood, 457-69
 sensory and the blind infant, 119-26
 Stocker, Claudell S.
 "Teaching Blind Illiterates to Read," 233, 235
 Straatsma, Bradley R., 240
 Strauss, Mrs. R. Peter, 191
 Students, blind, audio guide system, 432
 Sullivan, Maelzell, 144
 Sullivan, Mary Anne, 239
 Sukoff, Shel, 144
 Switchboard operator training, 143
 Switzer, Mary E., 230
 memorial building, 189

Tactile
 defined, 321
 reader, 345

Tactile Vision Substitution System (grant), 95
 Tactual defined, 321
 Talking book
 radio, in Minnesota, 281
 in teaching oral-aural communication skills, 451
Talking Book Topics, 451
 Talladega Institute for the Blind, 48
 Tallman, Carter B., Philip Davis, and John Asarkof
 "A Closed-Circuit Television System as a Reading Aid for Visually Handicapped Persons," 97-101
 Tape
 cassettes in Eskimo language, 189
 recorder in teaching oral-aural communication skills, 449-51
 Tapes for the Blind, 335
 Tax
 federal income tax exemption, 84
 law changes, 404-5
 Teacher
 blind, and the job market, 80-3
 of gifted and talented children (book), 45
 resource room, 363-8
 Vienna Congress of, 1873, 337-45
 Teaching
 aids in large print, 143
 jogging, 116-8
 oral-aural communication skills, 448-53
 technique modeling, 433-42, 469
 vocational skills, 301-8
TEACHING Exceptional Children, 383
 Technical Marketing Associates, 257
 Teitell, Conrad, 404
 Telepathy, 239
 Telescopic spectacles, 16-7
 Telesensory Systems, Inc., 410
 Television, closed-circuit
 bibliography, 137
 critique of, 346-51
 large-screen, 423
 manufacturers, list of, 137, 335
 markets for, 295
 as reading aid, 97-101
 selection criteria, 102-10
 "Ten Year Study of Diabetic Retinopathy Begun by the National Eye Institute," 25-6
 Testers, blind in food and fragrance industries, 276-7
 Testing
 The Forecast of Fulfillment (book), 47
 The IQ Cult (book), 333
 service, psychological, 141
 Unified ADL Evaluation Form, 479
 Tests
 access to results, 56-7
 braille, 158-60
 Haptic Intelligence Scale for Adult Blind (HISab), 118
 Texas School for the Blind, 202
 Thomas, Stanley B., Jr., 336
 Thornton, Walter, 7
 Thorpe, Frederick A., 144, (award) 336
 Toffler, A., 68
 Topitzer, Gerald F., 96
 "Touch and an Occasional Tap," 279
 Travel
 aids, electronic, 407-9
 independent for multiply handicapped young adults, 377-9
 Tremble, Judith T., and Lawrence F. Campbell

"A Diversified Cooperative Work-Experience Program for Blind and Multiply Handicapped Blind Students," 216-9
 Triformation Systems, 47
 Tumor Clinic, Columbia-Presbyterian Medical Center, 479
 Tunnel vision, 19-20
 Tuttle, Eunice, 144
 UNICEF and xerophthalmia eradication program, 189
 United Cerebral Palsy Research and Educational Foundation, 36
 United States Civil Service Commission, 399
 Outstanding Handicapped Federal Employee of the Year Award, 336
 United States National Institute of General Medical Services, 432
 United States Office of Education, 195, 240
 United States Public Health Service, 277
 United States Social and Rehabilitation Service, 143, 216
 United Way of America, 398-9
 University of Alabama Medical Center, School of Optometry, 12
 University of Arkansas, honorary LLD, 384
 University of Buffalo, Lucien Howe Gold Medal Award, 480
 University of Canterbury, Christchurch, New Zealand, 7
 University of Louisville, 191
 University of Michigan Child Development Program, 35
 Upsal Day Care School for Blind Children, 384
 Urena, Manuel S., 191
 Urrows, H. H.
 "Shoals and Storms Ahead? Funding Trends," 396-406
 Utah School for the Blind, 48
 Utley, Robert G., 288
 Utrup, Robert G., 432
 Uxer, John E.
 "Career Education and Visually Handicapped Persons: Some Issues Surrounding the State of the Art," 200-6
 Vacations and Community Services for the Blind, 141, 237
 Vail, Derrick Tilton (Obit.), 287
 Veterans
 disabled, hiring of, 141
 education, 331
 federal benefits for (pamphlet), 381
 Veterans Administration (VA), 143, 144, 237, 286, 408
 aging, normal, study of, 240
 Bulletin of Prosthetics Research, on tape, 239
 CCTV training facility, 351
 field service program, 143
 Vienna Congress of Teachers of the Blind, 337-45
 Virginia Commission for the Visually Handicapped, 144
 rehabilitation aids, 48
 Vision
 field of, 19-20
 limited services for, 386-8
 peripheral, 19-20
 and pulmonary function, 240
 rehabilitation and optical aids, 12-8
 teaching guide, 89

tunnel, 20
 Vision Center of Central Ohio, 336
 Vision substitution systems
 Collins, Carter C., 411
 phosphene stimulation, 411
 Visual
 handicap and infant motor development, 309-14
 impairment and child abuse, 241-50
 in infants, 457
 perception and play, 457
 Visually impaired, needs of, 352-62
 Visually impaired children, resource room for, 363-8
 Visually Impaired Data Processors International (VIDPI), 267
 Visually handicapped, the
 and career education for, 193-226
 CCTV as reading aid, 97-101
 CCTV selection criteria, 102-10
 in Maryland, 210-5
 Visually handicapped child, the
 and counseling, 251-7
 play equipment for, 459-61
 reading for, 461-64
 Vitamin A in xerophthalmia eradication, 189
 Vocational
 pre-, training program, 141
 skills training program, 301-8
 Vocational Education Act, Amendments of 1968, 216
 Vocational education, attitudes toward, 193-9
 Vocational rehabilitation
 computer programming (brochure), 383
 and the computer technician (article), 95
 "Contract Packages" (article), 47
 counselors, certification of, 78-9
 current concerns (article), 333
 facility evaluation (article), 333
 and job placement of the emotionally disturbed (book), 95
 rural (article), 333
 services, delivery of in future, 479
 services, quality of (article), 479
 Vocational Rehabilitation Act and the aging blind, 181
 Volta, Alessandro, 411-2
The Volunteer Community: Creative Use of Human Resources (book), 45
 Volunteers
 and blind children, 191
 in fund raising, 400-1
 pamphlet, 187
 periodical, 187

roles, new, for, 388
 and social clubs for the aging blind, 258-65, 271
 Vopata, Alvin E.
 "Making Mobility Meaningful," 161-7, 322
 Voting, literacy test for, 33
 Wait, William B., 340, 344
 Wald, George, 432
 Waldrop, Francis N., 48
 W. Alfred McCauley Award, 336
 Walker, Barbara Ann, 191
 Walker, Roger C., 288
 Walter E. Fernald State School, 297
 Ward, Allan L.
 "The Response of Individuals Beginning Work With Blind Persons," 1-5
 Ward, Maud, 144
 Ward, Roy, 131
 Webster, Richard W.
 "Jogging and the Blind Veteran," 116-8
 Weishan, Robert J.
 "Toward Involving the Total Community in Career Education," 415-23
 Welfare
 checks, direct delivery (manual), 333
 and communication (article), 383
 crises in (article), 95
 negative income tax (article), 47
 services for the blind in Japan, 175-80
 and social security (book), 95
 and work (book), 95
 Welsh, Richard L., Bruce B. Blasch, and Terry Davidson
 "Auditory Maps: An Orientation Aid for Visually Handicapped Persons," 145-58
 Werner, Mona M., 144
 Westaway, D. L.
 "Alternatives to the Blindness System in Australia," 66-71
 Westchester Lighthouse, 216
 Western Pennsylvania School for Blind Children, 219
 Western Publishing Company, 48
 West Virginia School for the Deaf and the Blind radio station, 335
What Do You Do When You See a Blind Person? 216
 Whitstock, Robert H., 96
 Wilhartitz, Adolf, 338
 Williams, Nicholas (award), 336
 Wilson, John, 67
 Winkley, William M.
 "A Minority Group Missed by the Equal

Employment Opportunity Act," 325-7
 Wisconsin Board of Vocational Technical and Adult Education, 141
 Wisconsin Division of Vocational Rehabilitation, 141
 Wisconsin Institution for the Education of the Blind, 338
 Wisconsin Regional Library for the Blind and Physically Handicapped, 191
 Wisconsin School for the Visually Handicapped, accreditation of, 479
 Wiseman, Dennis and Thomas L. McGreal
 "The Blind Teacher in the Educational Job Market," 80-3
 Wittenbrink, Boniface L., 282
 Wolf, Benjamin
 "Voluntary Agencies: A New Look," 385-8
 Wolfe, Harvey E.
 "Career Education: A New Dimension in Education for Living," 193-9
 Wonder, Stevie, 369-70
 Woolson, Robert W., 373
 Workers for the blind, 235
 beginning, responses of, 1-5
 careers (pamphlet), 331
 referral card flyer, 46
 Work-experience programs in Connecticut, Pennsylvania and California, 216-25
 Workshop instruction in 1873, 341-2
 Workshops, legislation, 383-4
 World Conference on Work for the Blind, 345
 World Council for the Welfare of the Blind, 67, 143
 World Health Organization Study Group on the Prevention of Blindness, 189
 World Rehabilitation Fund, 232
 Writing, universal system of in 1873, 339
 Wyant, Dennis R., 240
 Xavier Society for the Blind catalog, 384
 Xerox Corporation social welfare project, 143
 Yale University Medical School, 432
 Yoder, Norman, 336
 Young, Elliott (Obit.), 96
 Zadnik, Donna
 "Social and Medical Aspects of the Battered Child With Vision Impairment," 241-50
 Zaret, Milton M., 286
 Zimmerman, Bert, 141

New from AFB

classification **leslie c. higgins**
in
congenitally blind
children

**an examination
of Inhelder
and Piaget's
theory**

afb research series 25

This study considers the blind child's capabilities and difficulties in relation to the logic of classification which plays a central role in most areas of organized education. Drawing upon the work of Piaget and Inhelder, especially *The Early Growth of Logic in the Child: Classification and Seriation*, the author explores the relationship between total congenital blindness and the development and functioning of the mental structures underlying classifications. The validity of central aspects of Piaget's theory of intelligence is also tested.

Mr. Higgins is a research fellow at the Centre of Research in Learning and Instruction, Department of Education, Sydney, Australia.

December 1973 □ viii + 52p. □ \$2.00

Payment must accompany all orders totalling six dollars or less.

Order from:

Publications Division

American Foundation for the Blind

15 West 16th Street, New York, N.Y. 10011

SALE!

30% OFF!

SALE!

Back issues of the

AFB RESEARCH BULLETIN

A chance to complete your collection of the **AFB Research Bulletin** at a 30 percent savings. Valuable documents chronicling the last decade of research on blindness—a period of explosive growth in social, psychological, and technological research. Order now while the supply lasts. For a limited time only, 30 percent off the regular price of \$1.50.

\$1.05 each for the following issues:

No. 2 December 1962	No. 13 July 1966	No. 20 March 1970
No. 3 August 1963	No. 14 March 1967	No. 21 August 1970
No. 5 July 1964	No. 15 January 1968	No. 22 December 1970
No. 6 October 1964	No. 16 May 1968	No. 23 June 1971
No. 10 July 1965	No. 17 July 1968	No. 24 March 1972
No. 11 October 1965	No. 18 December 1968	No. 25 January 1973
No. 12 January 1966	No. 19 June 1969	No. 26 June 1973

All orders must be prepaid.

Order from:

**Publications Division, American Foundation for the Blind
15 West Sixteenth Street, New York, New York 10011 USA**



HV1571
O

THE NEW OUTLOOK FOR THE
BLIND. Vol. 67, 1973.

c. 6

Date Due			

AMERICAN FOUNDATION FOR THE BLIND
15 WEST 16th STREET
NEW YORK, N. Y. 10011

